

MINUTES

ITAC Meeting – Virginia Water Science Center Richmond, VA January 10-12, 2012

Participants –

Bob Lent, Katherine Lins, Pete Cinotto, Ramona Traynor, David McCulloch, Bob Swanson, Susan Trapanese, Gary Cottrell, Bob Kimbrough, Boyce Blanks, Kevin Housel, Terri Moore, Kate Flynn, Kris Lund, Gary Fisher, Shaun Wicklein, Willet Wilson, Jay Storey, Mark Bennett, Dan Cavanaugh (Deputy Associate Director for Water and Chair, Customer Advisory Board), Dan Hippe (Day 2 and 3), Burl Goree (Day 2 – by phone), Kim Martz

Day 1 – Tuesday, January 10, 2012

Welcome and Introductions/Agenda Review, Bob Lent

Bob Lent welcomed the group to the meeting. Introductions were made around the table to new member, Kris Lund (DBA Representative).

Bob introduced Mark Bennett, Director, Virginia Water Science Center (VA WSC) to ITAC.

Center Director, Virginia WSC Overview – Mark Bennett

Mark provided an overview of the VAWSC to ITAC.

- Office Logistics
 - o Office locations: Main office is in Richmond; office in Marion, and an office in Charlottesville
 - o Mark commented that there are many co-located staff
 - o Organization chart – Reference:
http://va.water.usgs.gov/LOCAL/employee_page/OrganizationChart.November2011.pdf
 - o Mark noted that Shaun Wicklein's role in the Center has increased. He is also now the Data Chief for the West Virginia Water Science Center (WVWSC)
- Budget
 - o FY10 – \$5.7M, 40 FTE
 - o FY11 -- \$6.1M, 39 FTE
 - o \$1.2M in funding from USGS (20-25%), the rest is from reimbursable funding
 - o Funding by program type – 1/3 data, 2/3 investigations
 - o Funding by theme – data networks, hydrologic systems, water supply, ecological health
 - o Mark commented that the VA WSC is at a good size, skill sets can be maintained; increase in funding is due to an increase in reimbursable funds over time (FY 2001 - \$3.9M to FY 2011 - \$6.1 M)
- Mark commented that the VAWSC has a good relationship with its cooperators (there is a consistent cooperator base)
- Data Collection
 - o 110 real-time (RT) stations, 146 water level wells (56 RT)
 - o Share monitoring network with VA Department of Environmental Quality (VADEQ) – 70 RT gages, 216 wells (74 RT)
 - VADEQ works with the VAWSC; ensure quality of data at the VAWSC level, VADEQ staff attend training
 - Their data is entered into the USGS database
 - VADEQ is the largest VAWSC cooperator (about 20% of funding)
 - o Fee is per site
 - o No VADEQ water quality data as it is not managed the same as surface water data
 - o Shaun commented that VADEQ does a good job quality assuring the data
 - VAWSC checks the quality of the data and pushes errors back to be corrected
 - There are no problems with VADEQ fixing the data
 - Shaun commented that DEQ staff are knowledgeable but are personnel limited

Q: Katherine Lins asked if DEQ takes advantage of USGS training.

R: Shaun and Mark responded that yes, they do, this is necessary.

- Projects: (Reference: http://va.water.usgs.gov/indx_projects.htm)

- o *Chesapeake Bay Nontidal Network* – a lot of Federal money is directed toward cleanup of the Bay
 - A network was established to look at trends in loads; Bay under TMDL
 - This is a vital network that will double in the next year
 - Maryland Department of Natural Resources wants to know the load from Virginia into the Potomac
 - Long-term trends (total Nitrogen) derived from ESTIMATOR model – a major deliverable is provided annually to the Chesapeake Bay Program
 - We have developed an efficient and timely process – product is released on-line

Fairfax County – Fairfax County is interested in generating long-term data to help improve water quality.

(Reference: http://va.water.usgs.gov/projects/ffx_co_monitoring.htm)

- \$10-20M/year in best management practices
- Monitoring network to help determine if Fairfax County programs are successful
- 4 intensive stations, 5-10+ years of data collection – Fairfax County wants to expand the network. Mark commented that the monitoring network is a lot to manage, and he is not sure about expansion of the network.
- County staff help with the samplers

Jay Storey asked if there were collaborative monitoring efforts with Prince William County. Mark responded there are discussions with other counties, but Prince William County is not one of these. Mark commented that the monitoring is expensive (each site costs \$50-60K to run).

- o *Clinch Basin* – Study of declining mussel habitats in Virginia while mussel habitats in Tennessee are healthier (Reference: http://va.water.usgs.gov/projects/clinch_ERIC.htm)
 - There are mining activities in Virginia that do not occur in Tennessee. This may contribute to the deterioration of mussel habitats in the Clinch Basin of Virginia; however, trying not to draw conclusions ahead of time
 - Study consists of monitoring at 2 primary sites and 8 secondary sites
 - This is a very integrated multiagency project – involves stations in both Virginia and Tennessee

- o *Water Census – Groundwater modeling*
 - Shenandoah Valley, Virginia Coastal Plain, and Virginia Beach
 - Shenandoah Valley - increased population; during the last drought, wells dried up.
 - Coastal Plain – shallow aquifer – thin layer and then salt. Water is pumped in from Lake Gaston
 - Virginia Beach – shallow groundwater study - concern over salt water intrusion – use of borehole geophysics

- o *Streamstats* –
 - Updated for gaged and ungaged basins statewide
 - Online in 2012

- On the Horizon...

- o Shaun Wicklein is now Data Chief in VAWSC and WVWSC
- o Potential merging of the VA and WV WSCs upon Hugh Bevans' retirement
- o Regional approach to data collection – look to neighboring centers to help in data collection efforts at gages located in closer proximity to those states
 - Look for efficiencies - blurring of borders – ex. PA, MD, VA, WV
 - Mark supports this idea
- o VAWSC website – Mark commented that the center has been holding off on updating its Web presence due to potential development of Bureau templates (the GA WSC site was referenced). VAWSC is waiting on further guidance.
 - Questions –
 - Ramona - Web Re-engineering Team (WRET) efforts
 - o WRET is getting underway with its next phase with meetings starting the week of January 23.
 - o Ramona commented that the VAWSC is well-placed with respect to its Web pages already using the Framework designed by Howard Perlman and Chris Leeth

- Ramona commented that the intent is to hopefully merge many of the Framework elements into a Template and add analytical tools.
 - The group has one year to come up with a realistic set of accomplishments.
- Bob Swanson - Google has changed its algorithms and now tracks what the user clicks
 - Ramona commented that Google's has changed their process in response to pressure from other social media mechanisms / how others use social media – hits are based on user interest.

Virginia WSC IT Overview (Andrew Shearin)

Andrew is the Lead IT Specialist for the VAWSC and has been the System Administrator (SA) for about 5 years.

Andrew's assistant, Haisam Hamama, IT Specialist, introduced himself to ITAC. Haisam noted that he has done some server administration and is working toward a PhD (data mining, database management, interdisciplinary). Haisam hopes this will allow him to contribute in the future toward USGS mission and direction.

Overview of IT in the VAWSC –

- 48 users, 39 in Richmond, 4 in Marion, 5 remote (IN, CO, MA, WV, Charlottesville)
 - Use RDP and BOMGAR to support remote users;
 - 12 DEQ Cooperators – eRAS access, NWIS access
- Terri asked if there are problems with cooperators getting access cards. Andrew replied no, the process is straightforward. Card reads “Cooperator” – cooperators use eRAS. The process takes about 4-6 weeks.
- Terri asked who pays for it – Shaun replied that the VAWSC pays for the access cards. It is not a significant expense.
- NWIS access is supported in VAWSC; other applications are the responsibility of the cooperator
- Gary asked about SIMS. Andrew responded there are no issues. Cooperators have AD accounts.

Network – 56 Laptops/Workstations

- 48 Windows 7 laptops / 3 Mac Dual boot
- 6 windows 7 workstations (specialized) – ex. Security camera
- 2 windows XP laptops (Legacy)

3 physical servers

- VMware ESXI server (hosts 3 VMs) (management, file server) – free
- File server
- NWIS server

New phone system – Avaya Phone System (2011 upgrade)

UPS for networking rack and UPS for server Rack

LAN utilizes 4 gigabit switches

1 DC

NAS/SAN for all data storage (user drives/Projects) - Moving toward central data storage -- 18 Terabytes – unified data device

Network/user support is managed using Spiceworks (<http://www.spiceworks.com>)

- Andrew showed a diagram of this setup and noted that Spiceworks is free.

VAWSC IT goals:

- Keep IT skills up-to-date – training (school, bootcamp, online, trade publications)
- Keep costs low – all work is performed in-house (no contractors / consultants), always searching for the best products at the lowest costs when purchasing (buy.com, Amazon), hardware consolidation (mover servers to VMs, move everyone to laptops)
- More efficient user support – monthly IT meetings with Senior Staff, using Spiceworks (better communication, requests are tied to system entities for future support reference)
- A new system can be ready in an hour (using Microsoft Deployment Toolkit (MDT) for OS deployment – WIN7 32/64 bit images); using Prism Deploy for software deployment; have packages built for users
- Andrew also noted that there are packages set up for those who have laptop for the field. This allows them to push the setup out and speeds up the process of setting up a computer.

Andrew gave a demo of Spiceworks

- Use AD credentials to sign in
- Maintains email thread
- Terri commented that other WSCs should use it – allows archive of communication, it's free, and allows tracking, makes that part of C&A easy, allows enforcement of user license compliance.
 - o Shaun commented that it does a lot more than just tracking
 - o Pulls in user information – tie alerts to users (ex. Warranty expirations on laptops, new software installed, UPS on-line, software patches, anti-virus versions, info on devices, help tickets for computer)
- Shows what is happening on the network before working on a computer.
- Boyce asked if Spiceworks has Big Brother capabilities. Andrew responded that yes, it does have these capabilities.
- Spiceworks has a large community of IT professionals
- Shaun asked if Andrew thinks this will help with C&A. Andrew responded “yes.”

Questions:

Jay Storey – commented that he gets automatic notifications about machines. He asked about the process when setting up a new machine. Andrew responded that they Pixie boot to the network to get the image for the machine. The image is added before connecting to the network. Plug in at BIOS level not on OS.

Town Hall Meeting (Office of Water Information, Katherine Lins; NWIS Update, Susan Trapanese, IT Liaison Update, Jay Storey)

Town Hall Participants -

ITAC members, Joel Guyer, George Harlow, Dave Nelms, Roger Moberg, Andrew Shearin, Haisam Hamama, Todd Augustein, Jennifer Krstolic, Mark Bennett, Shaun Wicklein, Dan Cavanaugh, Jay Storey -- **By Phone:** Nancy Sternberg (Office of Enterprise Information), Mark Negri, Paul Exter, Jack Eggleston

ITAC members introduced themselves to VAWSC staff.

Katherine Lins spoke briefly about what ITAC is and does. Katherine commented that ITAC provides a mechanism to communicate concerns to the Department, identify startup projects, and inform others of these projects so that they may come on board. Katherine commented that she has an appreciation of what the ITAC does.

IT Liaison Update - Jay Storey — updates on enterprise projects and services

- Hardware purchasing contract status
 - o Interim procedures
 - Process still under protest with resolution not expected soon. There is a waiver process.
 - Bob Swanson expressed concern over why this is taking so long and asked why. Jay responded that there is no estimate on time. Tony Bouret is the contact.
 - o New approval process for purchases > \$3,000 (over the micro purchase threshold)
 - Requirements are driven by Secretarial Order (SO) 3309 issued in Dec. 2010
 - All IT purchases over \$3,000 will need to be approved by the DOI, OCIO before purchase is made. OEI will submit IT purchase requests through the USGS AD for AEI to the DOI OCIO for approval
 - Allow at least 30 days
- Cost Center IT Spending Plans (AITPP)
 - o Extended to January 9, 2012
 - o Ensure USGS ADIR can certify that USGS is complying with SO 3309
 - o Two training sessions were held in December
- Unified Messaging and Collaboration
 - o Google has dropped their protest
 - o DOI issues a RFI to solicit comments and feedback for a DOI wide solution
 - o DOI is working on a RFP for release this month – planned migration to new solution (likely cloud based) is proposed for Dec 2012
 - o EI collaborative communications staff is working on cleaning up directories, users, groups, and configurations
 - o USGS is currently testing Microsoft Lync (IM client)
 - Bob Swanson asked if this included video or just chat. Paul responded that it is both.
 - o Need to determine how mail will be delivered to non-DOI managed devices (Likely a browser-based client)
- USGS Enterprise SharePoint (SP)

- o SP is a collection of products and software elements that includes, among a growing selection of components, web browser based collaboration functions, process management modules, search modules and a document-management platform
- o Managed under EI Collaborative Communications (Patty Damon) in Denver and her geographically distributed staff – gs_help_sharepoint@usgs.gov
- o Tools developed to help migration from Quickr and MYUSGS
- o Can be used to host web sites that access shared workspaces
- o Completed actions
 - Pilot migration test of Lotus Quickr sites to SP and other SP sites to the new enterprise SP system
 - Trust relationship allows external access to sp for science and organizational level
- o Next steps for FY 2012
 - Currently migrating lotus forms to SP
 - Consolidate the 2 ITSO instances of SP services to enterprise portal version
 - Migration of Quikr
 - Advisory group
- IT Transformation
 - o Jay showed a diagram of expenditures by mission area
 - @ 7% of appropriated funds; @200 Water FTE
 - Jay commented that there is a sense of frustration at high levels with things such as calendaring, etc...
 - USGS has established an internal ITT coordination group
 - ITT has defined 7 service areas and are moving forward with data calls, pilot projects, and teams
 - Service area status –
 - Unified Messaging – Lead is DOI OCIO, USGS Point of Contact (POC) is Patty Damon
 - o Contract in progress for Spring 2012 award – December 2012 migration; Microsoft Lync instant messaging will be available in Spring 2012 as a “Quick Win”
 - Bob Swanson asked if this will be available to everyone at once or if there will be a gradual migration. Paul commented that once the contract is awarded, mail cleanup will start – WSCs have a heads up already.
 - Keep old mail in Lotus or migrate Lotus mail to the new system? Will most likely start fresh and keep old mail in Lotus. We need to go back to USGS to make sure they agree with that direction. Migration plans will end in December or later. The goal is to complete migration in the shortest time possible.
 - Paul - the new email solution will limit the ways that users get mail. We may be limited in what clients will work.
 - Service desk – Leads are USGS and BLM; Scott Holmes is the USGS POC; USGS Service Desk is a model of how a good Service Desk works.
- Hosting services – data center consolidation
 - o NBC and BLM are the leads; Paul Exter is the USGS POC
 - o Application Data Inventory and Assessment Tool (ADAT) is required prior to any data center consolidation
 - o Pilot underway at Denver Federal Center and Menlo
- Workplace Computing Services (WCS) – Nicole Bojeajis is the USGS POC
 - o Goals: Develop a standard DOI image for desktops and laptops; standardized commodity applications across DOI
 - o “Quick Win” pilots:
 - Participation by USGS Offices (PR, MO, SD, CO, CA, FL)
 - Enterprise Asset Management (EAM) – BDNA application tested and rejected; likely to utilize SCCM infrastructure
 - Mobile device management
 - Enterprise power management
 - Account management
 - Risk management
- Google API Licensing and Oracle Contract Update – (Google Maps)
 - o Google API License – Nancy Sternberg, Chief, Enterprise Web is the USGS POC
 - o DOI purchased license in September 2011
 - o All DOI bureaus are covered for usage through FY 12 at no direct cost

- o Bureaus using Google maps API in FY 2013 will have to cover licensing costs
- o Guidance will be coming out
- Network Updates – Tim Lee
 - o Tim briefed the group on Networkx. Up to now, all contracts have been migrated to Networkx.
 - o On the data side, there have been a couple of protests; voice is complete, but data is not.
 - o Protest has been cleared. A plan is being put together to transition services to the new contract. We should see about 30% savings once circuits are migrated. FTS bridge contract expires in June, thus, this is the deadline to transition data services. This will be a like-for-like transition.
 - o 81 routers had to be upgraded over the past year, completing the router upgrade.
 - o 34-40 circuits have been updated to increase bandwidth.
 - o We are asking Verizon to re-architect the network to allow more sharing. Ex. Ft. Collins and USGS – look to reduce equipment footprint and share circuitry - decreased the # circuits and increased bandwidth by sharing services.
 - o Traffic analysis this year – what traffic going in and out of locations
 - o Team – River Bed contract awarded – looking at how best to deploy river beds to optimize bandwidth
 - o Quality of Service (QoS) – look at traffic, best way to install river bed systems, optimize bandwidth, look at NWIS, a lot of cleanup activities; reduce costs

Question –

Bob Swanson asked what the discount is for the lines. Tim responded that the overall savings will be 30%.

Katherine Lins asked if there will be other charges for things like QoS? Tim has that question out to Verizon business and will forward updates to Terri.

- Oracle Contract – Mark Negri
 - o DOI is funding Mark 50% of his time to renew the Oracle contract
 - o No enterprise agreement reachable
 - o Waiting on information from Larry Gross regarding how to proceed.
 - o Harry House is the technical representative. Mark will be the COTR.
 - o We may have to negotiate on our own. Harry is working on license swapping and requirements gathering.
- e-FTP –
 - o Currently located in Denver - in production under current hardware/software configuration since Jan 2011
 - o Managed by technical & systems support staff in OIT – Melna Jones
 - o Issues with current service
 - Lacks redundant failover capability – need additional hardware and red hat licenses
 - Need better tools for identifying malware and PII, user education and communication
 - o Improvements to e-FTP
 - Funding impacts to OITS, potentially to end users
 - Political and technical considerations (e.g. DOI “cloud first” policy)
 - o Looked at options and costs for an improved or new e-FTP
 - Consulted with water, geography, and SPN users
 - Options:
 - Maintain existing service (within OITS or EI)
 - Migrate to DOI as part of IT Transformation (ITT) – this would take time and costs are unknown, one of many migrated services to DOI
 - Improve and enhance existing service
 - o Include failover/recovery site and PII scanning (costs TBD)
 - o \$25K initial build out, \$10.5K annual recurring costs
 - o Expansion of existing service –requires approval by National Leadership Team (NLT)
 - o Expenditures and scope would not be aligned with ITT and cloud first policies
 - USGS-only cloud solution
 - o USGS-only cloud solution would be at odds with DOI ITT. DOI is already looking at a cloud service – do we want to wait?
 - Externally hosted service (cloud/data center)
 - Would require a lengthy procurement process (more than a year)
 - Funding model TBD

o Questions?

- Kate – what do you do with really large files? Currently, the solution is to break files apart and zip them. Jay responded that he will need to get back with a sound response.

NWIS update – Susan Trapanese, Chief, National Water Information System

- NWISWeb traffic – usage increased between 2010 and 2011 -- a lot due to release of web services
- New features for NWISWeb during 2012
 - o Serve all instantaneous values (IVs) back to 10/2007 – phase 1; phase 2 (2013+) will enable serving of all historic IVs
 - o Provide new web services for discrete groundwater levels
 - Display aggregated water use data
 - o Investigate a mobile friendly version of NWISWeb. This will be a specific designed set of applications
- Core NWIS will migrate to Oracle during 2012 – NWIS Release 5.0
 - o Servers are being purchased with expected delivery in March or April – configured between April and July
 - o Beta release in late July/August, and general release October through January (extra time to help WSCs during transition)
- NWIS will provide assistance and training for SA and DBAs. See the Town Hall Q&As for additional details on training.

VA WSC Presentation 1 – VA Coastal Plain Hydrogeology – Randy McFarland

Mark Bennett introduced Randy McFarland to ITAC. Randy has done a lot of work focused on the coastal plains of Maryland and Virginia. Randy has produced major reports on Virginia coastal plain aquifer system analysis. Randy discussed his work on Virginia's coastal plain with ITAC (reference <http://va.water.usgs.gov/projects/va089.html>).

Questions –

Bob Swanson asked if Randy, when working with Geologic Division, used Airborne EM. Randy responded that he has not. George Harlow commented that they are aware of the technology.

Randy asked Bob if there are things that influence the use of the technology. Bob responded that yes, there are. Bob noted there are problems when power lines are in the area. Randy responded this would make the technology unusable in an area such as Hampton Roads where there is a lot of military activity and high density population, and thus, a lot of power lines.

Mark commented that this is a huge amount of data. There would be a lot involved to keep track of the data in 3-D. Randy uses GIS and Excel and can now link spreadsheets to maps. The data is complex and of high volume. Bob Lent commented that this is a remarkable piece of scientific investigation, and it would be awesome to present it in 3D.

Randy commented that as investigations move forward, they will be done in the context of the crater.

VA WSC Presentation 2 – Characterizing peak flows and low flows in VA streams – An overview of ongoing work – Sam Austin

Mark introduced Sam Austin to ITAC, noting that Sam has a background in sediment transport and chemistry in small watersheds, urban streamflow characteristics, and that Sam's work is the underpinning for the VA WSC moving to Streamstats.

Sam reviewed the purpose of peak and low flow studies and noted that previous USGS studies are being updated with new data and information. Sam told the group about what information the new reports include and showed sample pages from the reports. The new studies are being treated as companion studies.

Sam discussed one of his active studies on characterizing the response of stream low-flows to precipitation and climate. Sam's project involves the use of ARIMA models (exploit data sets to characterize trends over time). In the process of developing models to predict mean monthly flows. VA DEQ is interested in this – they want to have an extended predictive window. The goal is to refine and develop accuracy on low-flow predictions.

Mark Bennett commented that Sam uses the Mac for modeling programs. Sam commented that for development, he uses SAS and JMP software. He also uses Stella – functionalities are tied to the Mac.

ACTION: Boyce commented that ITAC should document a list of resources for IT Specialists. Terri asked Sam to send her a list of the tools/resources that he uses.

New Item Programming Forum – Pete Cinotto

Pete commented that there is a need to make ITAC aware of the needs of high-end programmers. We need to get USGS science in the face of important constituents. ITAC may provide a mechanism to facilitate this effort.

Issues include:

- Maintenance of programs over time
- Project management
- How do we get data to the public (this is part of USGS mission?)
- Need for flexibility and creativity
- How do we manage these tools – we have some ownership?

22 applications that are in development – vary from mapping applications, mobile apps, Java applications. These build up over time.

Current process has been to try and use programmers who have time available that are in other WSCs. It is costly to do this, as Centers have different overhead, salary, etc... It would be helpful to have a system in place that had a set rate or overhead agreement. Within projects, we have had to negotiate different rates. This process is not working for us. It would be nice to have a mechanism by which to use these programmers – perhaps for use over months of time rather than just a week or two. The goal is to try to optimize the time that can go into application development.

Programmers are trying to respond as quickly as possible.
Should this be USGS-wide or Water Mission Area?

Pete commented that our business model has changed. Expectations from customers are greater. We are trying to meet the needs of our customers.

Why do we not have some sort of broad data storage across the Survey? How would USGS host that data?

- Currently, we are very involved with Amazon Cloud – trying to estimate costs, and collecting money is difficult. There are no means to capture that money. Having the ability to carry money forward for services such as hosting is important. We have to be a non-profit. This is not realistic when you are building applications that are going to be needed long-term.

Katherine - SPARROW gets money from NAWQA to go into working funds to support it for a longer period of time. Gary commented that the money came from 4 sources. There are different rules depending on where the money comes from. It has been difficult to keep track of where the funds come from. Katherine commented that this highlights some of the challenges. Once applications are built, we still need to maintain them. We end up with something that we cannot sustain. We need good management before we can get the money to start with.

Katherine - We have to find a way to manage these programs / applications.

Bob Lent commented on the number of applications asking if most of these are large issues. Gary responded that 90% are issues of National scope and many are multi-agency collaborative efforts.

Bob Lent asked what percent of these may require long-term maintenance. Gary responded that two or three are close to being finished. The rest are potentially on-going for years as long as there is funding.

Bob Lent asked how many of these applications are really needed. Would they be missed? Gary responded that he is not sure on this. There are a few that are needed – ex. National Wetland Mapper.

Bob Lent asked how many of these applications that require funding to maintain and are important to others would benefit areas of the country where they are not using them now. Gary responded that potentially all of these could find a larger audience.

Pete commented on Kentucky's use of some of these applications. KYWSC has received criticism from KY Geological Survey – we have all this data and we never do anything with it. Pete commented that an application like Pennsylvania uses could have saved KY GW monitoring network if it had been in place. Gary noted they are great outreach tools.

Bob Swanson commented that Gary is not able to get out and market these tools. Do these tools have a champion? Gary responded that there is no champion for these applications. Marie Peppler does go out with respect to hazards, but otherwise, there is no champion.

Pete suggested working on this aside from ITAC and report back to ITAC.

Bob Lent asked what ITAC can do. What is an appropriate response from ITAC? How do we determine the size and scope of this issue? This is not a single issue with a single solution. How do we take good USGS information and make it available to the most people possible? Bob would like to know what the 22 applications are. This would be a start.

Gary Fisher commented that in the 2 years he has been managing Special Projects, we have gone from 2 projects to 22. Programmers are unable to take on more unless there is guidance. Do it smart, do it right, make sure it will last!

Katherine would like to identify what the key pieces of a program are to make it something that would go beyond a one-time off the shelf project.

David McCulloch - CIDA is not in the same funding situation; they get a huge amount of money from NAWQA and have a lot of flexibility. There is a certain security for CIDA that Gary doesn't have.

Pete commented that a huge component is marketing. Need to get it in front of constituents. Pete commented that having collaboration and a game plan would be useful.

David McCulloch – The nature of our product has changed. We do not have the institutional structure to deliver. Pete commented that he has seen a huge shift in how we deal with the public.

Looking for a place where developers can “hang” their applications – add “tabs” that would be mini apps; Streamstats already has a lot built in. We should leverage what has been done already. Randy feels that the only place this can happen is with the Web. Katherine commented that there is a lot of merit in taking advantage of what already exists. Randy – in the real world, people build components... take component concept and think of it in terms of hydrologic methodology. We need a place to host it... and then we can put together a set of tools. This is a different concept than in the past.

ACTION – Bob Lent suggested discussing this during Thursday's ITAC business meeting. Come up with an Action Item for the next call. Revisit as an agenda item on the next meeting agenda.

USGS Flood Inundation Mapping Initiative (FIMI) – Scott Morlock and Marie Peppler

Scott gave a brief introduction about FIMI noting that the project started in 2008 after the Midwestern flooding. Bill Guertal led a grass roots effort to elevate flood inundation mapping. He brought people together to develop standards for static map libraries.

- 3 focus areas
 - Major flood documentation studies using high-water marks
 - Static inundation map libraries at gages/flood forecast points
 - Real-time, dynamic applications for the future (where science and cutting edge technology drive)
- Goals
 - Consistent visual and electronic format for USGS inundation geospatial products - complete
 - Static inundation map libraries linked to gages/flood forecasts – good progress
 - State-of-the art dynamic, real-time flood inundation applications (pilot)
 - Core of USGS and partner agencies
 - National USGS FIMI Web portal and WMA – portal maintained by Howard Perlman in GA
- Tech Accomplishments –
 - Full suite of static library templates and guidance that are blessed by the BAOs
 - Development tools for USGS
 - WiM created an Irene Mapper
 - Many presentations given in FY11 – ASFPM and others
 - 71 libraries are scheduled for publication by FY14 across 17 WSCs – these are firm funded projects
- Where is FIMI going?
 - OSW Tech Memo to mandate the use of these templates and products (put tools in place w/out formal mandate, now to mandate this)

- o Continue publishing static libraries
- o Continue work on dynamic, coastal, and HAZUS applications
- o Continue to work and build partnerships for FIMI
- o Increased involvement from HQ – have done most of what we can do in the field.
- Marie Peppler gave a demo of the FIMI Mapper noting the toolbox, guidance for interaction, and features of the application.
 - o <http://wim.usgs.gov/FIMI/FloodInundationMapper.html>

Marie also gave a brief demo of the IRENE mapper – web services supplied to FEMA and our own USGS offices. A large amount of data was transmitted. Marie commented that they are hoping that the application will develop into a larger product to help with deployment of crews, track location of crews, and for deployment of temporary gages.

Questions –

Bob Swanson commented that USGS had this type of map generation could have been useful during the MS River flooding. Bob Swanson asked about flood events - would a WSC call Marie or Bob Holmes? Marie suggested the WSC contact Bob Holmes.

Bob Lent commented that he sees a lot of good interaction with NOAA and NWS, at least in New England. With allowing inclusion of LIDAR data, is FEMA getting more interested? Scott commented that yes, FEMA is interested – Region 4 and some contact with Region 5... they see a tie-in with risk maps, so yes, they are interested. Marie commented that there is some talk about integrating FIMI maps and risk maps.

Bob Lent asked if there will be requirements on when we can use flood inundation mapping and when we cannot? Scott commented that there are guidelines now that can be used – there is a QA/QC checklist. Can determine how to do the models and at what resolution.

Bob Lent commended Scott and Marie for always having new information to provide. Scott responded that this is a true team effort, and he thanked ITAC for the invitation to speak.

ADJOURN DAY 1

Day 2 – Wednesday, January 11, 2012

OWI Special Projects (to include next steps for Field Computing) -- Gary Fisher

Field Computing – Burl is the lead

- Gary noted that there are a lot of devices and software packages involved – MONKES, SWAMI, CHIMP, station levels
- The goal over time is to merge these packages to a single package
- Accomplishments –
 - o MONKES – created a separate application to generate site visits from a MONKES original data file.
 - o CHIMP – several coding practices in SWAMI incorporated into CHIMP
 - o SWAMI – added acoustic parameters to SWAMI as specified by HAWG, released SWAMI_PC
 - o Stylesheets – Updated stylesheets for SWAMI and CHIMP; created new stylesheets for acoustic tests, levels, and MONKES
 - o Station Levels – released station levels application that implements the new SOP
- Plans for FY2012
 - o MONKES – release current beta; freeze new development and move to support-only mode
 - o CHIMP – release current beta; freeze new development and move to support-only mode
 - o SWAMI – release current beta, finalize code for Spring release (final version 2012); SWAMI_PC development/release will mirror SWAMI
 - o Stylesheets – update so they display new data added to SWAMI and Station Levels; create new stylesheets as appropriate for proposed new applications
 - o Station Levels – finalize coding; release final version in Spring 2012
 - o Advanced Development – development of SVMobile product that combines the field data entry of the current applications (SWAMI, Levels, CHIMP, and MONKES). Beta release FY12; Development of SWAMI light prototype in Rhomobile development environment

Katherine asked if this is the first time that the group has heard of this. Burl responded that no, the group has been informed of this change, but he feels that he needs to communicate more with the MONKES Interest Group.

- SWAMI light prototype is in Rhomobile development environment – using a student in Kansas.
- Can we easily create cross-platform applications?
- Terri asked what the timeframe is for the Rhomobile prototype. Burl responded that this is a prototype, so it is being worked on in 2012. The goal is to have something to beta test in 2012. Gary noted that this is not a primary deliverable.
- Katherine asked if other disciplines have used something similar or have used Rhomobile. Burl responded that some have used other applications (like HTML 5 or others) but he is not sure about Rhomobile.
- Bob Swanson commented that Burl may want to contact Lenny Orzol.
- Katherine – We are in the mode of people asking when use of SWAMI may be mandated. Katherine stated that what she is hearing is that we are not ready to do this. Burl responded that we are not there yet. We need to get the support right before we mandate. The hardware side is not the drawback. We need to ensure that there is staff in place to turn around any issues that may come up. Burl commented that he feels we are set up well for Windows8.
- Katherine asked about this effort and CARP – where does field computing fit in this process? What are the next steps? Burl responded that once the vendor is in place and we see what they offer, we should be able to scale back on development because the vendor will do this. The field computing team will transition to a training roll.
- Katherine commented that training is key for the field computing group. She asked what is in the works for this year. Burl noted the cyber seminars and the National Data Conference. The team will be doing training at the data conference. They have also done training at WSCs. Gary commented that he and Burl have talked about what kind of training to do. MONKES and Station Levels are stable – train the trainer – target training at those who aren't using the software through field training and cyber seminars.

Field Computing – November 2011

Shawn commented that many feel PDAs are too small and tablets are now available. Ramona commented that user expectations are changing and this becomes a management problem.... Staff has laptops, and may be difficult to carry the equipment in that environment, or don't want to take expensive equipment to the field.... There are a lot of reasons. With the limit on number of computers... cannot have a laptop, tablet, and phone...

Gary reviewed the membership of the FCIS Team and budget. Gary noted that the team is losing about ½ FTE.

- Gary briefly reviewed SIMS status, responsibilities and team membership.
- Gary also provided an overview of the Site Management Advisory Committee's (SMAC) membership, responsibilities, and operations. Gary commented that there are questions that the SIMS Team needs guidance from SMAC.
 - o Monthly conference calls will be starting
 - o Planning for annual user survey
 - o SMAC Chair (Shaun Wicklein) is liaison to ITAC. Gary asked if Shaun should periodically report out to ITAC.

- o Chair and SIMS leads will attend the National Data Conference (funding permitting)
- FY12 work –
 - o Develop SIMS elements data service
 - o Release PASS replacement
 - o Support tools needed for Continuous Records Processing
 - o Create revisions history element and nw_edit
 - o Investigate linking images to SIMS
 - o Analyze the use of elements by WSCs
 - Gary also commented that the National Weather Service and Corps of Engineers would like to see our elements, however, this is an internal application. We have to provide them with a paper copy. Their interest will help set us up for a possible public interface for outside agencies.
- Questions where the SIMS Team needs guidance from SMAC
 - o Should communications regarding SIMS with Technical Offices be coordinated by SMAC? – Yes
 - o Is the scope of SIMS to provide simple ADR and CRP tracking or is it to provide complex reports? – Open
 - o If reporting is a priority, we should probably follow the project proposal model – define requirements and dedicate specific resources to develop a product – Open
 - o Will there be a station analysis wizard?
 - o What elements are mandatory?
 - o What is the content for each element?
- Project management –
 - o Develop a formal project plan and infrastructure for long-term sustainability of SIMS
 - o Continue evaluation and promotion of new applications of SIMS connections and data resources
 - o Support needed for basic IT system administration (C&A and COO plan); this would free up developer time

Annual Data Report (ADR) Completion (WY2011) –

Gary commented that there are already data input.

- 25,000 data sheets each year
- We can now include biological/ecological data (testing this in Wisconsin, Illinois, and Pennsylvania). Shaun Wicklein expressed an interest in trying this for some sites in Virginia as well.
- Updated to Word 2011 for the 2011 ADR
- Future of the ADR is uncertain. There have been discussions about sunseting the ADR. Gary will be meeting with Senior Staff to discuss what the ADR does for us. If it is sunset, there needs to be a process in place for doing so. Gary commented on misconceptions regarding the ADR noting the following issues:
 - o NWIS and NWISWeb can provide all that the ADR does currently. This is not the case, for example, NWIS does not track changes. Gary commented that NWIS is not ready to provide some of the functionalities of the ADR.
 - o It is costly to produce an ADR. Gary noted that production costs have decreased.
 - o Discussion of ADR future -
 - Bob Swanson asked about the NYWSC. Gary commented that from day 1, NYWSC has wanted to do something different. The Center receives a lot of money from a cooperator to have a certain output. They do this for the cooperator.
 - Bob Kimbrough - it sounds like the discussion with Senior Staff will be based on the misconceptions and asked Gary to elaborate. Gary responded that the ADR provides other benefits.
 - Example - field comments – the ADR provides a workflow paradigm. Gary – with continuous records processing, you lose perspective on what those data mean. The ADR provides a different way of looking at the data. We need to be able to look at a periodic summary.
 - Dan Hippe commented that it is the discipline offices that are pushing for the discontinuation of the ADR. They feel that NWISWeb is the product/publication.
 - Katherine commented on the Policy Council – the Council did not feel it needed to go down to the WSC level - came to the program council as a “done deal.” Katherine suggested to Jared that we need to do a more research on the history of the ADR. There needs to be an understanding that we need some of these functionalities in NWISWeb before we can just end the ADR product.
 - Bob Swanson commented that the original group recommendation was that eventually NWISWeb would be that publication, but right now those capabilities are not there.
 - Dan Hippe noted that there are some things that are only available in the ADR and nowhere else. NWISWeb does not have this information.
 - Gary commented that there is a list of benefits to the ADR, and it will need to be decided how beneficial these things are. Gary noted that he will lay out suggestions / alternatives at the meeting.

- Susan – It is important that we make sure all of the information is stored in the core long-term NWIS archive which is different than NWISWeb.
- Bob Lent asked if there is a comprehensive list of things we need to do.
 - Gary noted that we need to figure out what we need to keep from the ADR.
 - Bob Lent – Can we identify what is needed to finish this process? Otherwise, there will be no clear and comprehensive end to the ADR product. Bob does not know enough about production of the ADR to provide a recommendation. What do we need to get done if we are going to abandon the ADR? What fundamental information do we not want to lose?
 - Bob Kimbrough commented this may exist from polling the water field team.
 - Bob Lent suggested that Gary to include this list in his presentation.

WaterAlert – Reference: <http://water.usgs.gov/wateralert/>

Gary gave an overview of the status of WaterAlert which is a highly successful application that has been recognized at the Department level.

- 31.5K active subscriptions; 23K subscribers (compared to 10K/6.3K in January 2011)
- Most support is to assist with subscription modifications. The team is prompt in responding.
- Issues to address with WaterAlert
 - Establish an approved program plan
 - Migrate WaterAlert to a program
 - Address the “what ifs” of WaterAlert (ex. such as what if the system breaks)

SMART – Kevin House

Kevin gave an update on the status of SMART.

- SMART is set up on the OSW scripts page (updated in December 2011)
- The latest update was to remove the Beta test statement out of the documents. We can make Jim Kolva and Joe Nielsen aware of who is running SMART. Kevin showed ITAC a slide showing which WSCs are running SMART and their status.
 - Colorado and Oklahoma are having issues and the fixes should be ready by the end of January. Colorado will turn on SMART after snow melt.
 - South Carolina has it installed but not fully configured. Boyce will follow up.
 - Maine is waiting for after ice to upgrade
 - Virginia is fully operational
 - West Virginia will start running it soon – after Shaun has meeting with the Center
- Prior to the ITAC F2F, Kevin sent out a survey on SMART usage. Based on the questions asked, the survey indicates that SMART is user friendly and well-liked by those who are using it.
- Kevin noted that email is generated when changes are made.
- Phase 2 of data corrections are pending
- Jay Kiesler (IN WSC) is the main programmer
- Katherine asked if Kevin knows that budget for SMART. Kevin responded that he does not. They are still working on what is in Phase 2. Steve Blanchard provided the funding for that work - Office of Surface Water (OSW) took on SMART to fund. Katherine was wondering about the budget with respect to what we are doing with handhelds. She will follow-up with Robert Mason.

Riverbed On-Site Demonstration – Lucas Arroyo, Riverbed Technology Sales; Dave Williams, CTO, FCN Tech Solution)

Lucas Arroyo and Dave Williams briefed ITAC on the use of Riverbed technology. They commented that the hope is to bring a solution that will meet USGS’ needs. Dave commented that when you look at NWIS, it is a suite of applications that is already doing some things that are improving efficiency. Some port numbers that NWIS has used in the past were for RT streaming media. Riverbed technology can accelerate the data – optimize moving data.

Q: Terri – Is USGS considering putting Riverbeds at 3 gateways?

R: Yes, in Menlo Park, Denver, and Reston

Dave commented that Riverbeds are easy to get into the environment. If they fail, traffic continues – the network will act as if there is no Riverbed device.

Q: Boyce – Does it handle DFS traffic?

R: Natively, yes, the Riverbed can handle the traffic. Once the data is encrypted, it works differently, but you can add keys.

Q: Boyce – Is this less than ideal?

R: It is one more thing to maintain. It is not a problem for the device, but does require more planning. The device can be partitioned for QoS. Terri commented that we are testing QoS with positive results. We are moving toward QoS.

ACTION – Terri will provide a diagram/list of NWIS servers to Dave Williams.

Bob Lent commented that NWIS is a small percentage of traffic, but it is very important. There are large processes running in the background. NWIS is not what is congesting the network. Dave Williams responded that cleaning up background traffic, antivirus updates, file sharing will help. The benefit will be in that the efficiency of how NWIS works will improve.

River View Demonstration – (Shaun Wicklein, Bob Swanson, Jared Criscuolo)

Bob Swanson gave an overview of the beginnings of Stream View – it was a Sandy Williamson idea.

- BioData Photo Hosting – have been talking with Mitch Harris and Pete Ruhl. Biodata is the newest approved Water Mission Area database. Have the ability to tag photos in that database. The bio community wants the ability to photo voucher specimens and field events, the ability to provide storage and host – ex. For SIMS
 - Platte River Time-Lapsed Photo Project – a loose collaboration with photographer, Mike Forsberg, and the University of Nebraska. This is not a web camera project – Mike got Nikon to give a camera – 16 Megapixel photos. Educational and science outreach project to take Hi definition time series photos and host them on line. Working with WY and CO – Reference - <http://plattebasintimelapse.com>
- Stream View
 - Sandy Williamson concept of a Google “Street View” like experience for streams
 - Crowd-sourced photos. Both USGS, other government, and public
 - If there was a site like Picasa, Panoramio, etc... people could upload photo from smartphones, they would already be geotagged.
 - We already have some recent and historic photos of many streams
 - Sandy’s idea was very close to Jared Criscuolo’s idea – River View – Sandy was made aware of Jared’s idea by feedback that Jared submitted through USGS feedback channels
 - USGS joined forces with Jared’s effort to meet our needs. Biodata is doing crowd-sourced photo as this meets their need. This may eventually be merged into a fully crowd-sourced effort.
 - Bob Swanson commented that we want photos that are georeferenced.
 - Sandy commented that we would only accept photos that are lat/long tagged already
- Riverview – <http://riverviewproject.org>
 - A concept developed by Jared Criscuolo and Kristian Gustavson of Below the Surface (<http://belowthesurface.org>)
 - Jared gave an overview of the River View Project to ITAC. He noted this is a partnership between Below the Surface, USGS, Google (who may want to incorporate this with their programs), Immersive Media, and others.
 - Jared and Kristian are Outside Magazine’s Readers of the Year for 2012 – enhances exposure to the project.
 - Jared gave a demo of Riverview to ITAC, and he will be presenting to the ELT next week.
 - Working on a phone app that can be used to take photos / video and upload to the project.

Discussion –

- Katherine asked what the next steps are. How can ITAC help promote this in Water?
- Upcoming efforts will be to document the Sacramento, Platte, Colorado, and San Joaquin Rivers – they will go where there is money available to carry out a project.
- Bob Swanson asked about the demo photos – the project has use of a hi-definition camera, but the photos do not look hi-definition. Jared responded that the Demo code is organic; it’s not Google’s code. Now that we have Google’s code, the web site can be redone once there is funding to do so. There is the potential for Google to host.
- Bob Lent commented that with the popularity of Web cams, he would like to see recreational rivers in Maine be documented.
- Katherine commented on the Potomac River – would provide exposure to political folks
- Jared commented that he is working with Mike Lewis in Colorado.
- Bob Lent asked for recommendations for Jared.

- David McCulloch noted the Water Smart initiative on the Colorado River. Dan Hippe responded that the Bureau of Reclamation has a bigger role with Water Smart
- It was recommended that Jared contact Eric Evenson about the Water Smart Initiative.
- Bob Swanson asked if USGS can send staff to California to be trained by Below the Surface. He commented that USGS staff could be collecting miles for Jared when they are out in the field. Jared responded that the current process is to hire out for the trips.
- Boyce asked how much the camera Jared is using costs. Jared responded that the camera is a \$70K camera that they purchased for \$25K. Boyce commented that the \$25K cost is not beyond what a joint WSC effort could purchase.
- Jared noted that if there are still shots currently available, these can be used – can be uploaded now.
- There was a comment made in the room that “if there are dots on the map, USGS can help connect those dots.”
- Shaun commented that there are things that WSCs can provide – here is an app for your phone, give instructions to take a photo while on the river, provide the photo to those working on the project. Jared responded that once the phone app has been developed, there will be an upload link for the user to send the photo to the Riverview site. Katherine asked if the photo can be tagged “USGS.” Jared responded yes.
- Katherine referred to our collaborative partnership with the National Park Service (NPS). Mark Nellis is the contact. Jared expressed interest in having a call with them.
- Gary commented that we have a CRADA in place and remember to be aware that there are certain rules we have to follow.
- Jared – short term goal is to get the phone app completed and out to WSCs. Jared also noted that education and outreach have become important – being Outside Magazine’s Readers of the Year gives 2,000,000 members exposure to the Riverview project. There will be more articles during the year. Katherine noted that USGS Director McNutt likes this type of outreach.
- Ramona asked if there should be a connection with the NHD. Katherine responded yes and that Jeff Simley may be interested. Katherine will invite Jeff to Senior Staff.

CARP Committee updates (Joe Nielsen)

Joe Nielsen updated ITAC on the status of the Commercial ADAPS Replacement Project (CARP).

- The team was tasked with getting a commercial replacement for ADAPS - update time-series processing and provide a framework for advancing this into the future.
- Doing this on the recommendation over several years to do this. Upgrade would be difficult based on the current 27-year old architecture.
- RFP documents are written and most approvals are in place. The last signature needed for awarding a contract is the Assistant Secretary for Water & Science – not needed though to put the RFP out on the street.
- Formal notice was given to vendors in pre-solicitation. There is a high amount of buzz among vendors. As a precursor, the Future of Time Series (FOTS) team put out a request to vendors about their packages.
- Expecting the RFP to be out in the next couple of weeks. Contracting officer will send the RFP to DOI for legal review – not sure how long this part of the process will take.
 - Joe is coming to Reston next week – going downtown to talk to the Assistant Secretary for Water and Science with Robert Mason to talk about the project. Joe is hoping this may help expedite her signature.
- Next will be a 6-week period where we wait for vendor proposals to come back and then will go through an intensive evaluation process.
- Teams will review the proposals – user workflow, look and feel, IT perspective, what will integrate with NWIS, hardware needs, etc... Will use this process to come up with a final package.
- Looking for a final vendor selection in the spring if the RFP goes out in the next couple of weeks.
- The CARP Team is digging into ADAPS now to look at what alternatives we may have under different vendor scenarios. There will not be a turn-key solution. Joe commented that there will be things that it does really well, and others that it won’t do as well or at all. We want to be able to build improvement into the system.
 - Now evaluating the parts and pieces of our time series system – what can we get rid of, what can we keep? – do this first with the team and then extend out for further comment.
- Joe reminded ITAC about the keep discussion quiet. We need to be careful to avoid a protest so the solicitation can go forward. Joe asked that this not be discussed until RFP goes out.

Questions –

Terri – have Joe been able to determine anything from the network information that she sent to him and Joel. Joe responded that he did get some stuff out of it and Terri replied back. Joe will follow up with Joel – Terri will send email to Joe.

Large Data Set Hosting & Plans for GIS Assistance (David McCulloch)

David commented that skill sets are not what they previously were and there is a lack of GIS support. A set of courses has been put together to train on GIS skills.

There is no longer an eGIS group. All technical support was done by Water. Jennifer Sieverling is no longer the eGIS lead. She is now in the data delivery group. Mark Negri splits time between Oracle and ESRI licensing agreement.

David commented that he and Curtis Price respond to most of Help questions.

Terri asked if there is a GIS Help Desk. David commented that they want to roll it into the Help Desk. Help Desk then forwards to GIS Help.

ACTION – Issue: Lack of GIS support and erosion of GIS skills; organizationally, USGS is not structured to support GIS needs.

Bob Lent asked if the approach we want to take is in the way of general training or specialized training.

Pete commented that he sees two levels of training that are needed depending on the person and what task is to be completed. Pete commented he has two fundamental sets of skills that he separates out in his section.

Issues to address:

- What are the training needs and how do we address these needs?
- Is there a roll for ITAC?
- Next step is to coordinate with STED
- Katherine suggested putting together a curriculum noting that our primary responsibility is to get Water staff trained

Katherine asked what the plan is for the GIS curriculum. David responded that Forest Service (FS) has a set of GIS courses that are good 3-hr courses. These should meet our needs.

NGA has a GIS university that we can also take advantage of. David needs to follow up on this.

Katherine asked when the first class will be held. David responded that the FS classes are online now, we need to announce them. There are also ESRI classes, but it is difficult to determine which we are eligible to take and some of the courses are expensive.

David also commented that he is investigating hosting NWIS Mapper, Mojave GW model, and SIMS images on the Amazon Cloud (host large datasets).

- Fed Cloud is only Federal agencies. NWIS Mapper is costing .13 cents/hour. David can shut the service off (ie on weekends). We do not pay when it's not running.
- Windows servers are more expensive – 17 cents/hour
- Katherine noted that Robert Mason has expressed interest in moving Streamstats to the Cloud.
- David commented that there are vendors that are offering Cloud services, however, these are really only traditional hosting.

David commented that we need to consider what the public expects us to deliver.

Katherine - it would be good for Water to find some sites that could use the GSA cloud. Maybe ITAC can influence the decision to use these services.

ADJOURN DAY 2

Day 3 – Thursday, January 12, 2012
ITAC Business Meeting

Web Update (Ramona Traynor)

Ramona reviewed the list of proposed Webinars –

- Tim Lee – Advanced webinars
- DBA Workshop – Kevin Housel (April/May timeframe)
- Stream View update (February)
- SIMS update - Gary Fisher (January?)
- Terri – MACs in the workplace (Tony SA in ND) – later in the year
- Gage funding - Brian Reece (potential backup) – (Summer timeframe)
- Google Analytics – (prior to June)

Ramona suggested moving forward with the DBA workshop. Kevin commented that he has several topics that he can present. Kevin wants to talk to Kris and Sonya and indicated that they could have an early Spring webinar. Kevin can put together the DBA workshop or turn it over to Kris. Katherine asked if Kevin has the time. Kevin responded that he does have the time to put a workshop together. Kevin commented that he can probably get one set up (ODBC) but needs to confirm timing and availability of instructors. Kevin also reminded ITAC that we need to determine if there will be a data conference in April.

Ramona asked if Gary Fisher is still putting together something for January/February. Katherine recommended that Gary's webinar be held in February.

Katherine suggested waiting on a Stream View webinar – we're not ready yet.

Bob Swanson suggested a webinar on Macs in the workplace. Bob commented that he was thinking of support for those who are supporting Macs in the workplace. Terri will take the action on this.

Ramona suggested hosting a webinar on Brian Reece's gage cooperator website in the summer.

David McCulloch proposed a webinar on converting Google APIs to other APIs (March timeframe).

ACTION – Ramona is rotating off of ITAC. We need to decide who take over the role of setting up webinars. Replacement for Web representative must also be decided.

ITAC discussed possible nominees for Web representative.

- Deanna Terry (TX)
- Stewart Rounds (OR) – (he is a SW modeler) concern that he is not “plugged in” to the Web community
- Gary Krammes (CO) – Ramona volunteered to talk to Doug Burkhardt, Gary's supervisor

ACTION – Terri will check with Texas and Colorado and report back to ITAC on the next call.

ACTION – Bob and Katherine will discuss how to proceed with the logistics for the next webinar.

Review of Town Hall Meeting (Bob Lent)

ITAC reviewed questions and response to late submissions.

Discussion of ITACs approach to the Town Hall Meeting –

- With regards to the approach to Town Hall, Bob Lent suggested sending out responses to FAQs when soliciting questions for F2F Town Hall meetings. This would provide examples of questions we get, as well as solicit new questions.
- Susan commented that it is difficult to respond with only a 1-day turnaround if the question is detailed.
- Ramona commented that she liked the format where the Center staff were at the table and ITAC to the wall – so staff were not “talking through” ITAC.
- Ramona suggested putting the FAQs on SharePoint – they can be grouped together and would be searchable.

ITAC Action Items – New from meeting and review of current AIs

ITAC reviewed new and outstanding Action Items from the meeting. **Note:** New AIs are documented at the end of the minutes.

Review 2011 goals, ITAC SharePoint/WebPage reorganization and consolidation; web page updates (Bob Lent)

- ITAC goals were discussed and updated. Kim will update the document and post to SharePoint, the ITAC Web site, and forward to ITAC.
- Suggestion to keep public facing information on ITAC Web page
- Ramona discussed possible opening up of some SP pages to non-ITAC members. We need to use caution if we do this and would require discussion on which parts of the site remain ITAC only.
- Kim and Terri have discussed maintenance of ITAC Web and SP.

ITAC meeting schedule, member replacement, officer elections - Next F2F location and dates

The next F2F meeting will be in Nebraska. Bob Lent and Bob Swanson will discuss possible dates and Kim will set up a Doodle poll – select from the week of June 11 or the week of June 18. **DONE**

Next conference call is scheduled for next week – Kim will cancel the call scheduled for next week. Continue with next month's call. **DONE**

Identify a Chair – The original plan was for Bob Lent to work with Scott Gain at the VA WSC meeting, and Scott will then take over. Scott was unable to attend the meeting. Bob will work with transitioning Scott into his role as Chair.

Hand Held Update – Bob Swanson

Bob gave ITAC an overview of the field survey results from the Field Computing Report.

The survey indicates that 87% use field computing equipment (though not necessarily FCIS applications). Ninety percent think field computing saves time and money.

Survey observations:

- Desire for field software to be compatible across different platforms and operating systems
- Use of tablets, netbooks, and smart phones is preferred – want to use laptops and PDAs less
- Display size affects ease of use and user satisfaction
- Average savings in field and office times for individual visits are small, but cumulatively significant
- Highest adoption rate for Levels – it saves the most time of the apps
- SWAMI is the most used and more are starting to use it
- Users recognize the increase of data quality with use

Bob discussed cost/benefit analysis and noted that mandating use across the board has the potential to save a lot of money. However, we tend to resist change – “Culture trumps strategy.”

Long-term cost/benefits:

- Increased completed data fields in NWIS
- Easier retrieval of archived hydrologic data
- Reduced DBA costs related to locating and correcting bad data
- Complete archival and storage of discharge measurement, groundwater level, and water-quality data
 - Allows for innovative and unanticipated uses of data in the future
 - Greater compliance with OSW, OGW, and OWQ rules regarding collection and documentation of field data

Recommendations from the report:

- Rethink current application development strategy
- FCIS Unit should have independent oversight from a steering committee
 - Bob commented that Gary Fisher is providing some oversight. There is no steering committee. Update of Web pages is in progress.

- Increase investment in FCIS
- Evaluate the feasibility of using commercial vendors
- Continue to provide annual webinars
- FCIS Unit should continue to support existing applications by providing user support
- FCIS developers should continue adapting code for NWIS 4.11
- Ensure the future user testing is performed over the Enterprise Services Network (ESN) from a field office to a remote NWIS Server
- Resistance to change has limited the effectiveness of Program – more hands-on training, develop a team of “train the trainers” (would provide support for Burl), inform WSC leaders of potential cost savings
- Integrate the best features of all mobile apps into SVMobile
- Incorporate SVMobile into CARP requirements
 - Kevin commented that the short-term goal is to develop SVMobile so we can get mobile apps running.
 - Joel is working on the mobile side and Burl is working on the PC version

Katherine’s concern is if FCIS is being managed the right way. Does the group continue to work as they have been? Bob Swanson responded that FCIS is a very successful program and this is reflected in the Field Computing Report. Bob hopes to get more funding.

Richmond Town Hall Questions

What is the status of conversion of USGS email to a different platform (i.e., one with a much higher space allotment per employee)? I thought I saw somewhere that Bureau of Reclamation got an award for efficiencies for converting to Outlook.

The USGS will be part of an overall DOI migration under a DOI RFP which will be issued this month; we are hoping for award in the Spring time frame and to start the migration by the end of Calendar year 2012. I am not aware of any award BOR received for converting to Outlook, however many Bureaus had started such a migration prior to IT Transformation's Unified Messaging Initiative so this might be related to that. At one point there was a department plan to move to an interim messaging solution, using Microsoft Exchange (which includes Outlook) infrastructure which was in place already at some DOI bureaus. A decision was made to concentrate on the RFP and making only one migration. The unified messaging email system will likely be cloud based; I do not know the specific space allotment (quota) but will look at the RFP once it comes out on FedBiz Ops. Our expectation is there will be around a 2 GB allotment, as is typical for commercially provided email services.

I recently got an iPhone and from looking at some of the recent ITAC minutes, it sounds like it would count against our computer per person number if our IT staff loads Lotus Traveler on it (which the new STIG info implies is a requirement). As I understand, all field computers and smart phones need to have Lotus Traveler in order for the IT staff to register the devices, simplify updates, and improve the ability to inventory and track devices. By doing this it increases the number of "computers" per person. If we are forced to implement a less than two computer/employee rule, our WSC IT staff is going to need a lot of help in figuring out how we can do that without significantly affecting our ability to conduct field work.

You are referring to the Workstation Ratio Reduction (WRR) under DOI IT Transformation, WRR is limited to desktops and laptops but does not include mobile devices such as iPhones and iPads. Dedicated field computers are counted in WRR but are in a special category that does not get measured as part of our overall WRR. Registering an iOS or Droid device in Notes Traveller does not make it a "computer" or OS under WRR. There is some discussion out of DOI about limiting employees to "two devices" overall, to include mobile devices (Blackberry, iOS, Droids), e.g. an employee could have a laptop and blackberry but not both and an iPad or other tablet too. There is no specific action on this yet but we will keep ITAC and users informed if more guidance on this topic is released.

Slow network speed in remote field offices continues to be a problem. Can you please provide an update on solving this situation?

- *Working with the Center that has reported this particular network speed issue. The Network team has been monitoring their network traffic and reporting back to the SA. We will follow up on the progress.*
- *Testing QoS – finished testing in PA, OR, and IA with positive results. Terri sent an email out to the WSC SA's asking if they wanted to turn QoS on at their sites. The list has been submitted to the Network Team. The team will be working with Verizon to set up a schedule to activate at the sites who requested QoS.*
- *QoS will not be a solution for a site that needs an circuit upgrade, but a noticeable improvement was observed at the sites QoS was tested at when accessing the NWIS server from the field.*

Under large data set hosting, will you be talking about ways to serve large files (>2-4GB) online? This is an issue that has come up for us, and I put in a request for advice to the CTO and numerous other offices but never found a solution other than to chop files and serve them as multiple parts of a zip file.

Action to research this further will be taken, but at this point in time, we are unaware of an ability within USGS to be able to do this. DOI is discussing a procurement for an IDIQ cloud based hosting solution. We will check into the status of that and see if it will allow storage of larger files of this size. We will also take this requirement into account as part of any changes we make in our current eFTP service.

***Note: Comment: at this point even commercial hosting services like Amazon EC2 have file size limitations as well, so even going to a commercial vendor for this might not be a solution to the file size problem.*

I have been hearing a bunch of rumors about NWIS server consolidation. I'd like to hear more about that & what it means for DBA's. Will there still be a need for DBA's in the science centers?

NWIS Response:

No matter where the WSC data (database) is located, there is still a need for active Data Management – which is a primary role of the WSC DBAs.

We have heard that WSCs/Areas may be looking into different approaches for potential costs savings that might be achieved with IT and/or administrative consolidations and sharing amongst centers. OWI/NWIS hasn't been contacted yet for technical input. NWIS server consolidations and co-locations need careful consideration.

It may be desirable to relocate/co-locate NWIS servers to share IT support resources and to optimize network connections. However, based on our experience with the merger of the Florida NWIS databases, the NWIS Office does NOT recommend consolidating/merging WSC NWIS databases.

For the longer-term, the NWIS User Groups and ESC have recently endorsed a multi-phase, multi-year plan to develop a National/centralized NWIS database and set of applications that would ultimately lead to centralized systems (redundant – multiple locations for COO) that would replace the current 45 WSC NWIS servers. The current timeline for that replacement is at least 5 years in the future.

I tried to think of things and the biggest problem I have is getting HELP!! Budgets etc don't allow nor can they bring in a replacement for me to train until I vacate my position. So in the grand scheme of things, money for the science "support" folks is a topic for ITAC but not for other DBAs (unless we just to hear each other complain).

The Central Region Advisory Committee for Data (CRACD) recently conducted a survey of DBAs to determine the requirements and resources that different Water Science Centers need to complete their desired tasks. One of the objectives of this study was in anticipation of your issue and would help to identify Centers that might be able to support each other in the event of a sudden vacancy. Many Centers may have even a marginal surplus of capability that they can contribute remotely to another location.

On the more practical side, you might try talking with the Center Director about several programs that can provide entry level personnel at little or no cost to the Water Science Center. Nebraska brought on a SCEP student specifically for succession planning. The Office of Human Relations paid for most of year one and parts of two subsequent years. There are also programs to hire returning veterans that provide for up to two years of salary coverage. I think that it would be hard for a Director to argue that this would be a win-win for the Center. Nebraska also has a GS-2 office clerk entering historic measurements. This young man is able to enter up to 600 measurements in a day at a high rate of accuracy and arrangements could be made to extend this service to other Centers.

There are several HR programs that include funds that cover salaries. That's what we did for DBA succession planning for Nebraska. We may have a couple of years that we end up having to contribute funds but the overall costs to the Center are reduced.

There is a program for returning veterans that will cover full salaries for up to two years that could provide transition to a successor. Finally, many WSCs may have partial time available for an SA. This could provide temporary help and the providing WSC would get the benefit of working in another WSC and see how things are done differently there. A win-win.

I am interested in Oracle and how it is going to impact us. I hear that it will be "transparent to the user" but what are DBAs going to need to know/do to support Oracle. Will there be a real need for an IT level person to support Oracle?

NWIS Response:

DBAs and SAs will have IT support help from the NWIS technical teams throughout the new server installation and the NWIS 5.0 installation process. In addition, cyber seminar training is planned specifically for the WSC SAs and DBAs to take place prior to the release of NWIS 5.0.

The new server setup and NWIS installation tasks are being split into two phases. The first phase will be the configuration of the new servers including the installation of Oracle. The current schedule for this first phase is April 2012 through July 2012 and is dependent on when your new server is received. The second phase will be to complete the NWIS installation and transfer your WSC from NWIS 4.11 to NWIS 5.0. The second phase is scheduled to begin with beta releases in August 2012 and continue with the general release and installation through January 2013. This schedule has been extended from other NWIS installations to make sure that the WSCs have the help they need through this transition.

It is our goal to have the effort to support the Oracle installation to remain the same as it is now to support the Ingres installation.

I would like to know more about is the Oracle training they sent an e-mail out about. How much of it applies to DBAs (and not SAs) and should I take any of the trainings?

NWIS Response:

On November 15, 2011 NWIS/BJ Bour sent an email outlining some of the training offerings in Skillsoft that would be the most helpful for WSC DBAs and SAs to take prior to the release of NWIS 5.0.

From the email/webpage, the list of Skillsoft training most applicable to SAs, DBAs and developers:

Oracle Database 11g: Getting Started with SQL and PL/SQL New Features

Oracle Database 11g: Querying a Database with SQL

Oracle Database 11g: Using SQL to Query Your Database

Oracle Database 11g: Using Subqueries and Regular Expressions

Oracle Database 11g Release 2: Backup, Recover, Archive, and Repair Data

Oracle Database 11g Release 2: Database Architecture and Installation

Oracle Database 11g Release 2: Database Architecture and Recovery Operations

Some of the courses in this list which would be beneficial to DBA's specifically would be "Getting Started with SQL and PL/SQL New Features", "Querying a Database with SQL" and "Using SQL to Query Your Database".

These suggestions are also noted at http://nwis.usgs.gov/INITIATIVES/ORACLE/Docs/Skillsoft_oracle.training.html

As part of NWIS 5.0, standard database settings will be released to all WSCs. We would not anticipate DBAs would need things like advanced database tuning or partitioning because NWIS would release a standard, tuned installation.

I would like to know the reasoning behind having the ADAPS re-write contracted out. My Director asked me and I had no idea. He also asked if I thought it would work. I said based on prior USGS experiences that I was skeptical but if the specifications were written well and USGS was involved in testing at every step then it was possible it would work. I'd like to hear ITACs thoughts.

Because the RFP has not yet gone out, we cannot go into details of what we will be asking for in the contract. However, it is important to note that Water is not contracting out a re-write of ADAPS. We are seeking a Commercial off the Shelf (COTS) replacement for ADAPS. It is recognized that no existing COTS completely duplicates ADAPS and that the selected vendor will need to make modifications to their product to fully meet our requirements.

The current ADAPS is a very old system (1984!). As computer operating systems change and the people that are familiar with the software retire, it becomes increasingly difficult to maintain and support. ADAPS needs to be replaced. It might be nice if we could do it in-house, but we do not have the resources to re-write ADAPS. At the same time, the commercial market now has at least a couple of vendors who can provide an ADAPS replacement. Our experience with GRSAT and Water Survey of Canada's experience with a COTS replacement for their ADAPS equivalent has demonstrated that a COTS tool can be a viable solution. The Commercial ADAPS Replacement Team (CARP) members have lots and lots and lots of experience and knowledge of ADAPS. The ADAPS requirements and documentation, as well as the CARP teams experience have all contributed to the very detailed requirements that will be specified in the RFP. See the CARP page (<https://collaboration.usgs.gov/project/carp/usgs/SitePages/Home.aspx>) for details of CARP activities and membership.

Further development of ECLIPSE (CO WSC) or SW electronic field forms

ECLIPSE is an independently developed product. SVMobile is what OWI is supporting. Contact the Colorado WSC for additional information.

Mobile software for Android and I-Phones, we just purchased Androids and are using for mobile hot spot instead of using for a device to run SWAMI, CHIMPS, MONKEES, etc

Development of a SVMobile product that combines the field data entry of current applications (SWAMI, Levels, CHIMP, and MONKES). Beta release in FY12. Development of SWAMI light prototype in Rhomobile in 2012. Application will allow basic entry of SV data (no acoustic details or imports). Applications will run on multiple mobile platforms (Windows Mobile, Apple, and Android).

Comment: We have a great concern about the status of the FCC ruling on the radar gages. We are using more radar gages and have requests from cooperators (COA and IDOT) to install these sensors. Currently we have around a dozen on back order at the HIF and everyone is just waiting...

We are continuing to use radar level sensors at this time. The discussions with NTIA on their use by USGS/DOI are ongoing at the departmental level. Multiple avenues are being used to get clarification on their use. The radar level sensors are FCC part 15/NTIA Annex K devices which classifies them as unlicensed devices which are to operate on condition of non-interference. The FCC has gone back and forth on the notes regarding specific conditions of use of this type of equipment, and then only on some specific licenses, not all of them. However, the NTIA governs federal use of the spectrum, not the FCC. We are continuing to operate in good faith until we have been specifically told otherwise.

The National Radio and Spectrum Program Management called and had a discussion with a couple of the Sutron Corporation Engineers. They discussed their sensors, specifically operation and FCC type acceptance. They also discussed their request for waiver through the FCC. It seems the waiver request was for the equipment to operate out of band. (M5460-M7250) The FCC Part 15.250 band is (M5925-M7250). That is one of the approved operational bands. FCC has not responded to the waiver request and the Sutron equipment, operating out of band, is not approved for use. There is equipment from other manufacturers operating in the M5925-M7250 band that is FCC type accepted and approved for use. We are still gathering information to support claims from manufacturers that outdoor operation while attached to structures is approved. A summary of the conversation with Sutron Corporation will be provided in the next couple of days. Additional information will be provided soon.

Myron Brooks sent out an email on Jan 30, 2012 commenting that HIF customers are experiencing unacceptably long delays in deliveries of equipment ordered from the 1stop online catalog as well as for orders placed near the end of FY 2011 via the Special Buying Assistance Program. HIF is working to resolve the issue.

New AIs from the F2F –

AI – Person assigned: Pete Cinotto

Issue: Facilitation of the needs of high end programmers.

Description:

Status: Action Item for discussion on the next call. Add to agenda for next call.

AI – Person assigned: Boyce Blanks

Issue: Collecting a list of resources for IT Specialists for modeling resources

Description: Begin to establish a formal list that can be put on the ITAC SP site.

Status: Terri asked for Sam Austin to send a list of resources to her.

AI - Person assigned: Terri Moore

Issue: NWIS servers and Riverbed

Description: Provide location of NWIS servers to Dave Williams, FCN (Riverbed)

Status: Kim will remind Terri

AI – Person assigned: Terri Moore

Issue: Web representative for ITAC

Description: Ramona Traynor is rotating off ITAC. We need to select a new Web representative.

Status: Terri will check with Texas and Colorado to determine interest and availability of Deanna Terry and Gary Krammes as replacement for Web representative on ITAC.

* (not an AI) GIS training needs -- Lack of USGS support for GIS and erosion of GIS skills. Add to next agenda.

AI – Person assigned: David McCulloch

Issue: GIS course curriculum

Description: David will distribute the course curriculum

Status:

AI – Person assigned: David McCulloch

Issue: Cloud hosting

Description: David List of current successes

Status: David will provide an update on current successes regarding the use of Cloud hosting.

AI –Person assigned: ITAC

Issue: ITAC goals

Description: Update ITAC goals document

Status: ITAC reviewed the goals at the F2F meeting. Kim will update the document and send to ITAC, post on SharePoint, and post on the ITAC Web site.

AI – Person assigned: Terri and Boyce

Issue: SA replacement

Description: Discuss replacement for Boyce

Status: Terri and Boyce will generate a list of potential candidates for the next conference call.

AI – Kim will send out the minutes next week to the group to be forwarded to your constituents.

Reminder to Kim – attach Town Hall Q&A