

**USGS National Geospatial Program Proposal to Develop
Online Courses for the Use of *The National Map*
in Support of the Water Resources Community of Use**

Short Course Title - *The National Map*

Descriptive Course Title - Using *The National Map* Products and Services for Water Resource Science

Lead SMEs

Shelley Silch
Geospatial Liaison for Illinois
US Geological Survey
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Geospatial Liaison for Pacific Region
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Advisory SMEs – NGP Products and Services Leads

Rob Dollison – *The National Map*
Dave Saghy - Elevation
Jeff Simley – National Hydrography Database
Bob Davis - USTopo

Brief Explanation of ROI to the USGS for having your course delivered via the Internet -

The USGS National Geospatial Program (NGP) has developed a robust suite of geospatial products and services called *The National Map (TNM)*. Many of these products and services will greatly facilitate science projects undertaken by USGS scientists working in the area of water resources.

Available training resources are dated and USGS scientists have not been able to keep pace with the rapid development of *TNM*. As a result USGS as a whole is not fully benefiting from NGP efforts in this area. The complexity and richness of the new products require structured formal training and online training is the only practical way to teach the water resources communities of use how to access and use *TNM*.

We estimate that well over 1,000 scientists from across the USGS organization would ultimately benefit from *TNM* online training. The travel costs for this many staff to travel to regional centers for the training is not affordable and the only practical way to reach this many scientists is through online training. The benefits will extend to many outside USGS involved in water resource management including Native American natural resource programs, local planners and state environmental programs.

Brief Curriculum Vitae for each SME - One (1) page maximum for each.

Problem Statement - Managing water resources is at the core of the USGS mission. The purpose of this project is to make instruction on the use of *TNM* data, products and services available to all USGS staff involved in water resources science.

Course Summary/Description - As one of the cornerstones of the USGS' National Geospatial Program, *TNM* is a collaborative effort among the USGS and other Federal, State, and local partners to improve and deliver topographic information for the Nation. *TNM* comprises a variety of products and services that provide access to base geospatial information (such as orthoimagery, elevation data, and hydrography) to describe the landscape of the United States. *TNM* supports data download, digital and print versions of topographic maps, geospatial data services, and online viewing.

Indicate if the Course Has Been Taught Before in the classroom –

N/A

List Existing Course Materials (if any) Including Formats, Etc. -

N/A

Intended Audience - Our initial goal will be to train the Hydrologists and GIS Specialists working in the 40 USGS Science Centers over the first three years. We estimate the number of employees to be 400. However, we also expect the content to be useful to scientists from all USGS disciplines and local, state, tribal and other Federal officials, with little or no modification to the materials.

Anticipated Results and Benefits - Almost all USGS job descriptions require applicants to have skills to varying degrees using geospatial data, products and services. Most applicants have the software skills required, but have not been trained to use *TNM*. In addition there is a need for ongoing training as *TNM* content and functionality expands continuously. Improvements are continuous and the need for ongoing training spans over many hundreds of employees. Online training is the only practical way to offer this training. After completing the modules trainees will be able to download data, retrieve US Topo maps and historical maps, navigate *TNM* viewer, use *TNM* data in ArcGIS, create base maps, use web services, print maps etc.

Applicability of Course to Multiple USGS mission areas - Although we are targeting water resources communities of use, the training will be generic enough to be useful to any discipline needing access to high quality geospatial data, products and services including staff involved in natural resource conservation, geology, geologic hazards, energy, mineral resources and responding to natural disasters.

Describe How the Course Will Support the USGS Science Strategy

TNM will accelerate science investigations resulting from the Science Strategy. At USGS, we believe that the starting point to understanding the complexity of earth systems is the concept of eco systems. Ecosystems are inherently “interdisciplinary,” with geographical, biological, geological, hydrological, and other components. Ecosystems are also inherently “multi-scalar,” spatially and temporally. Geographically standardized ecosystem inventories such as maps or databases—enable scientists to pursue conservation planning (through gap analysis), resource management, and predictive forecasting of ecosystem conditions. A vibrant *TNM* will promote this type of science—and many others—by providing nationally consistent, trusted geospatial data and establishing a consistent national geographic context.

Timetable - Basic course development activities with proposed start and end dates (month/year). July 1 2014 through June 30 2015

Estimated Project Budget – The following describes the roles of each team member and the requested budget:

Shelley Silch, Claire DeVaughan, Drew Decker and Dan Walters expect their level of effort to be 120 to 240 hours each over the course of the project. Their role will be developing content using Powerpoint.

The software Articulate Presenter, or an alternative preferred by OED, will be used to create the modules. Nick Stasulis will train the team to prepare the content in a manner suitable for online presentation and the software and will record the modules. The team would also like to develop YouTube videos for some of the modules to augment the online training. Nick would provide the training and technical support for the YouTube publication software.

Rob Dollison, Dave Saghy, Jeff Simley and Bob Davis will serve as advisors to the project. The liaisons will call on them when needed to better understand the functionality of *The National Map*.

Finally, several hydrologist/GIS Specialists will be recruited from the centers to test the modules and provide feedback before each is released. We expect their level of effort to be 80 hours.

Requested budget - \$20,000 for salary, overhead, software and travel.

Estimated Number of Course Modules/Lessons - Up to 12 modules varying in time from 30 minutes to an hour. The first module would be an overview of *TNM* and preview of subsequent modules. Each of the modules would focus on specific skills such as using the viewer, downloading data, creating and printing maps including adding your data, using WMS and WFS to build a basemap etc. An initial list of modules will be developed in July 2014

Estimated Frequency for Course Updates

Annually by NGP Liaisons

Written Supervisory Approval - Include as attachment. Required for all SMEs involved.

----- Forwarded message -----

From: **Linda Leake** <lleake@usgs.gov>

Date: Fri, May 16, 2014 at 2:40 PM

Subject: RE:

To: Shelley Silch <ssilch@usgs.gov>

Shelley, I am supportive of your efforts and think it is a great idea.

Linda Leake
Deputy Regional Director (Operations)
Midwest Region
U.S. Geological Survey

(608) 781-6263 Office
(651) 769-4796 Cell

Shelley Silch, GISP is the U.S. Geological Survey (USGS) Geospatial Liaison for Illinois. She has been with the USGS for over 30 years with the last eight in Illinois. As a liaison she represents, coordinates and implements National Geospatial Program (NGP) Office programs and initiatives in the context of State, local, other federal agency and regional needs and strategies. Her primary role has been to engage partners by providing leadership and guidance to ensure the unified implementation of the entire portfolio of national geospatial programs and to implement key components of the National Spatial Data Infrastructure. Recently, NGP's mission has expanded to more closely satisfy the needs of its users through Communities of Use (COU). Shelley serves the mission as a representative on the Water Resource COU. She also serves as a Section Chief for the USGS Water Science Center (WSC) in Urbana, Illinois in the newly created Data, Information and Geospatial Integration for Technology and Science (DIGITS) section. This additional duty will create a synergy between the NGP Water COU, the IL WSC and the rest of the water community throughout the Nation. She has also been active with the geospatial community in Illinois by serving on the Illinois GIS Association Board, the Illinois Height Modernization Committee, the Illinois Geologic Mapping Advisory Committee and numerous other committees.

Shelley began her career in 1976 at the Mid-Continent Mapping Center located in Rolla, MO. She started as a Word Processing Clerk and after attending the University of Missouri – Rolla and is currently a Physical Scientist.



Walters, Daniel <danwalters@usgs.gov>

Fwd: Approval for SME for developing online courses for the National Map

1 message

DeVaughan, Claire <cdevaugh@usgs.gov>
To: Daniel Walters <danwalters@usgs.gov>

Tue, May 20, 2014 at 12:39 PM

----- Forwarded message -----

From: **Day, Warren** <wday@usgs.gov>
Date: Fri, May 16, 2014 at 2:22 PM
Subject: Approval for SME for developing online courses for the National Map
To: Claire DeVaughan <cdevaugh@usgs.gov>

Claire,

Please consider this to be written approval for you to be an SME for developing online courses for use of The National Map.

Warren

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Warren C. Day
Deputy Regional Director for Science, Southwest Region
U.S. Geological Survey
Mail Stop 911, Denver Federal Center
Lakewood, CO 80225
office: 303-236-6484 cell: 303-253-1790

Curriculum Vitae

Claire DeVaughan
Geospatial Liaison for Texas
U.S. Geological Survey
1505 Ferguson Lane
Austin, Texas 78754

Current Responsibilities

Since 2006, has served as the Geospatial Liaison for Texas, engaging and supporting State, local, regional, Federal and other partners in improving timeliness, quality and accessibility of geospatial data for the community. Actively shares information with stakeholders on National Geospatial Program products and services, and engages with priority user communities to gather feedback. Served two terms as Vice-Chair of the Texas Geographic Information Council (TGIC), eight years as Chair of the Texas Federal Geographic Information Workgroup (TFGIW), and as Conference Coordinator for the Council of Geographic Names Authorities (COGNA) 2014 Annual Conference. Has coordinated USGS participation in over 20 cooperative partnerships with state, regional, and local partners for the acquisition and improvement of geospatial data in Texas. Such collaborative efforts are the foundation of The National Map, ensuring availability of common base data to a broad range of users and applications.

Past Experience

Since joining USGS as a student cartographer in 1989, in Reston, Virginia, has served in various capacities as a Cartographer and Geographer, specializing in geographic research in support of the U.S. Board on Geographic Names, database maintenance, thematic map production, website design, and vector and raster data collection and editing.

Educational Information

B.S., Geography, Cartography Concentration, Frostburg State University, Frostburg, MD

Certifications

Certified Public Manager (CPM) – Texas State University, Round Rock, TX

----- Forwarded message -----

From: **Benjamin, Susan** <sbenjamin@usgs.gov>
Date: Mon, May 19, 2014 at 9:24 AM
Subject: Re: OED proposal and permission to participate
To: "Decker, Drew" <ddecker@usgs.gov>
Cc: Steve Aichele <saichele@usgs.gov>

Drew,

I approve you spending time on development of this proposal. I'm glad to see that the liaison community is looking at different approaches to communicating TNM capabilities and uses.

DREW DECKER
4165 Spruance Road
San Diego, CA 92101
(619) 225-6430

EMPLOYMENT HISTORY

Geospatial Liaison, U.S. Geological Survey 2007 – present

Serves as geospatial liaison for southern California, Hawai'i, and Pacific Basin. Work with local, state, and federal partners to support development of public domain data for *The National Map* (TNM). Projects include elevation, hydrography, orthoimagery, and geographic names data. Supports the Water Resources Community of Use with a focus on supporting use of, and updates to, the National Hydrography Dataset (NHD) and facilitating coordination between Pacific Region science centers and the National Geospatial Program. Provides general support to USGS scientists, other agencies, businesses, universities, and the public for mapping related questions concerning geographic data resources, geographic information systems (GIS) applications, and data access.

GIS Analyst/Statewide GIS Coordinator/State Cartographer, Texas Water Development Board and Texas Department of Information Resources 1993-2007

Held several roles in two Texas state agencies in support of statewide data generation and dissemination. Coordinated and managed statewide GIS data collections for Texas. Oversaw the Texas Strategic Mapping Program (StratMap), a multi-year program designed to produce, enhance, and maintain 1:24,000 digital base map layers for the state. Coordinated partnerships between state, local, and federal parties to fund data creation and exchange. Provided outreach on the program to GIS users across Texas. Managed Texas Natural Resources Information System. Served as administrative co-Chair for the Texas Geographic Information Council (TGIC) and the GIS Managers Committee. Wrote GIS strategic planning initiatives and related documents for Texas GIS. Active with federal groups (FGDC and USGS) in both seeking funding for Texas and in planning standards and future GIS data directions.

EDUCATION

Ph.D., Geography, University of South Carolina

Remote sensing and GIS concentration; coastal applications

M.S., Geography, Florida State University

Environmental planning, environmental impact statements, and land use

B.S., Geological Sciences, New Mexico State University

Geochemistry concentration, technical writing

SKILLS

Mapping software (ArcGIS, Global Mapper)

Remote sensing (digital image processing, aerial photo interpretation, digital terrain)

GIS applications (GIS implementation, GIS data source integration, data access)

GIS data (TNM, related national datasets, general basemap content, metadata)



Walters, Daniel <danwalters@usgs.gov>

TNM Online Training in Support of WR COU Proposal

1 message

Holcomb, Glenn <gholcomb@usgs.gov>
To: Daniel Walters <danwalters@usgs.gov>

Wed, May 21, 2014 at 11:04 AM

Dan,

I reviewed the attached proposal and support the concept of this online training course. I therefore approve this proposal to move forward for submission along with your participation in developing the online courses if accepted.

Glenn B. Holcomb

Glenn Holcomb
Northeast Region
US Geological Survey
11649 Leetown Road
Kearneysville, WV 25430
Phone: WV (304) 724-4526
Phone: Reston (703) 648-6620
Fax: (703) 648-6859

"It's not the years in your life that count, it's the life in your years"
Abraham Lincoln



Walters, Daniel <danwalters@usgs.gov>

Re: online classes for The National Map

1 message

Stewart, Gregory <gstewart@usgs.gov>

Thu, May 22, 2014 at 11:41 AM

To: "Walters, Daniel" <danwalters@usgs.gov>

Dan,

I support Nick involvement in this project. Please let me know if you need anything else.

Greg

On Wed, May 21, 2014 at 3:51 PM, Walters, Daniel <danwalters@usgs.gov> wrote:

Hi Greg Can you send me an email giving Nick approval to work on the online training modules for The National Map? The final proposal is attached..... Dan

Dan Walters
Geospatial Liaison for ME, MA & RI
USGS
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Augusta, Maine 04330
207-776-1293
danwalters@usgs.gov

—
Gregory J. Stewart P.E.
Data Section Chief, Maine Office
New England Water Science Center
196 Whitten Road
Augusta ME 04330
tel: 207-622-8201 X 118
fax: 207-622-8204
gstewart@usgs.gov



Walters, Daniel <danwalters@usgs.gov>

Re: online training

1 message

Stasulis, Nicholas <nstasuli@usgs.gov>

Tue, May 20, 2014 at 8:44 AM

To: "Walters, Daniel" <danwalters@usgs.gov>

Dan,

Not a formal resume, but this is similar to what I included last time.

Nick

- Started as a student with the USGS Maine Water Science Center in 2003
- After completing a BS in Microbiology from The University of Maine in 2004, started full-time with the GS.
- Though working primarily as a hydrologic technician in the data program, is also occasionally involved in scientific investigations.
- A member of the Hydroacoustic Work Group (HaWG) since 2010, which is an advisory committee to the Office of Surface Water for hydroacoustics.
- As a member of the HaWG, has developed short, informative videos available online; an example can be found here: <http://hydroacoustics.usgs.gov/training/podcasts/ADCPComm/player.html>
- Instructor for the SW1321 Streamflow Measurements Using ADCP's training course. Also the lead developer for an 8 hour online prerequisite training for SW1321; course material can be found here: <http://hydroacoustics.usgs.gov/training/SW1321TEL.shtml>
- In 2014, worked with a group in the USGS to create a series of YouTube videos on SWAMI, a field program used in Surface Water. Nick not only recorded several videos, but produced the entire series: <http://www.youtube.com/playlist?list=PLlxIFowAfHBCvNI2DsUTaj3BftwRPimQH>

Nicholas Stasulis
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Visit us on Facebook -
USGSScienceInMaine

On Tue, May 20, 2014 at 7:45 AM, Walters, Daniel <danwalters@usgs.gov> wrote:

Hi folks The next version of the proposal is attached. The \$20k would cover 6 weeks of Nick's time and 2