Appendix A. U.S. Geological Survey (USGS) Structured Interview Guide

The National Map Customer Requirements Questions

Interview/Focus Group Date:_____ Interviewer:_____ DE: ____

Respondent Name:_____ Email:_____ Phone: _____

Organization: _____ Position: _____

Organizational Background

1. Please describe your business/organization	
a. Responsibilities (land management, data creation, regulation, governance, etc)?	
b. Size (no. of employees), Budget for your area of responsibility, and geographic scope of your organization. (If nation-wide/ Agency-wide, which sub-agencies do you service?)	
c. Your role in the organization?	
d. Who are the major internal customers of GIS services within your agency?	
e. Who are your major external customers of GIS services outside your agency (e.g. state & local gov't, private sector entities…)?	
f. Workforce sophistication – with technology/ GIS? (check one) 1.___ Highly advanced – GIS is actively used throughout the organization for complex analysis. 2.___ Sophisticated – GIS applications are developed to support some business activities and GIS analysis is generally provided by a GIS support group. 3.___ Intermediate – GIS is used in some parts of the organization and we are on a significant growth trajectory. 4.___ Novice – GIS is being used in a limited part of the organization. We do not create any of our own software applications that use GIS 5.___ Map user - We are not skilled in GIS but we use map products. 6.___ No opinion	

2. Which of the following most closely apply to your organization? Please check all that are significant functional areas that utilize GIS in your organization.

- ❍ a. Agricultural practices
- ❍ b. Climate change
- ❍ c. Defense and homeland security
- ❍ d. Economic development
- ❍ e. Ecosystems, biodiversity and resource conservation
- ❍ f. Energy and mineral resources
- ❍ g. Geography awareness (education)
- ❍ h. Human health and the environment
- ❍ i. Human services
- ❍ j. Infrastructure development and maintenance
- ❍ k. Natural hazards assessment and emergency response

- ❍ l. Natural resource and land management
- ❍ m. Recreation
- ❍ n. Regulation of pollutants and other contaminants
- ❍ o. Water quantity and quality
- ❍ p. Community development and growth management
- ❍ q. Law enforcement

Business Requirements Focus

3. Describe five business activities within your organization that are highly dependant on geospatial information.
   a.

   b.

   c.

   d.

   e.

4. Do any of these activities require that you access geospatial data from outside of your jurisdictional boundaries (e.g. across State lines, across international lines… for watershed assessment, regional development…)?
   ___ No
   ___Yes, please describe these activities and how you meet these requirements. That is, where do you get the data you need?

5. Please describe your use of the following products and services from USGS.

Geospatial Products or Services	Daily	Weekly	Monthly	Yearly	Don't use
a. The National Map viewer	⑤	④	③	②	①
b. The National Map seamless server	⑤	④	③	②	①
c. The National Hydrographic Dataset (NHD) viewer	⑤	④	③	②	①
d. Geographic Names Information System (GNIS)	⑤	④	③	②	①
e. The USGS store	⑤	④	③	②	①
f. 7.5 minute printed topographic map	⑤	④	③	②	①
g. 7.5 minute scanned topo map (DRG)	⑤	④	③	②	①
h. Orthoimagery	⑤	④	③	②	①
i. National Elevation Dataset (NED)	⑤	④	③	②	①
j. National LandCover Dataset (NLCD)	⑤	④	③	②	①
k.National Hydrographic Dataset (NHD)	⑤	④	③	②	①

6. If you use topographic maps, how do/would you use a digital topo map in the field? (check all that apply)
___ a. I don't use them
___ b. Primarily as a printed product
___ c. Primarily as a stand alone digital product on a laptop or handheld computer
___ d. Primarily as a digital product on a laptop or handheld computer with additional data display, data entry or digital markup and editing capability
___ e. Other: _____

7. If you use scanned (digital) or printed USGS topographic maps how important are they to your work?
___ a. Very Important—mission critical. I couldn't do my work without this feature
___ b. Quite Important—mission relevant. I need it, but can make due without it
___ c. Somewhat Important—It's not always needed to complete the mission, but is helpful
___ d. Not Very Important—I use them from time to time, but they are not that important
___ e. I don't use them (nor does my agency)

8. Have you completed a formal assessment of your mission critical geospatial information needs? Is there a report that you can share with us? (Make note of how to follow-up if can't get it live).

Please Rate the base geospatial data layers in order of importance relative to <u>your organization's</u> business requirements. Please rate seven (7) of these layers as High (H), seven (7) as Low (L), and the remainder as Medium (M). Please rank these layers first for: Col. 9. DATA Col. 10. Possible to display on Digital TOPOGRAPHIC maps			11. What update cycle would you consider to be minimally acceptable for the following base geospatial data layers in order to meet your mission critical needs?						
9. DATA Rank	**10. TOPO Rank**	**Geospatial Data Layers**	Daily or per transaction	≤ 1 mo	≤ 1 yr	≤ 3 yrs	≤ 5 yrs	≤ 10 yrs	>10 yrs
		a. Orthoimagery	⑦	⑥	⑤	④	③	②	①
		b. Transportation – Public streets/roads	⑦	⑥	⑤	④	③	②	①
		c. Transportation – Airports	⑦	⑥	⑤	④	③	②	①
		d. Transportation – Railroads	⑦	⑥	⑤	④	③	②	①
		e. Transportation – Trails	⑦	⑥	⑤	④	③	②	①
		f. Transportation – Other routes such as forest roads generally closed to the public	⑦	⑥	⑤	④	③	②	①
		g. Vertical and horizontal control	⑦	⑥	⑤	④	③	②	①
		h. Pipelines and powerlines	⑦	⑥	⑤	④	③	②	①
		i. Structures – rural areas	⑦	⑥	⑤	④	③	②	①
		j. Structures – selected public buildings such as schools, hospitals, courthouse	⑦	⑥	⑤	④	③	②	①
		k. Structures – Urban area designation (tint)	⑦	⑥	⑤	④	③	②	①
		l. Land cover (i.e. vegetation, built, wetlands, grasslands)	⑦	⑥	⑤	④	③	②	①
		m. Vegetation – woodland tint (subset of landcover)	⑦	⑥	⑤	④	③	②	①
		n. Elevation	⑦	⑥	⑤	④	③	②	①
		o. Geographic names	⑦	⑥	⑤	④	③	②	①
		p. Boundaries - Public Land Survey System (1/4 section, section, township, range)	⑦	⑥	⑤	④	③	②	①
		q. Boundaries – Civil boundaries to include city, county, state, international	⑦	⑥	⑤	④	③	②	①
		r. Boundaries – Federal and Native American lands	⑦	⑥	⑤	④	③	②	①
		s. Hydrography – Surface water	⑦	⑥	⑤	④	③	②	①
		t. Springs and wells	⑦	⑥	⑤	④	③	②	①
		u. Physiographic feature names (mountain, valley, canyon, plain, etc.)	⑦	⑥	⑤	④	③	②	①

		v. Parcels	⑦ ⑥ ⑤ ④ ③ ② ①

12. For which layers do you need archival or historical data?
(List all the letters from the table above for which such data is needed)

____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

13. Rate each of the following on importance of the resolution/scale for which you need geospatial data whether or not you currently have the data.

Geospatial Item	Very Important—mission critical. I couldn't do my work without this feature	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use them from time to time, but they are not that important	I don't use them (nor does my agency)
a. Imagery: 6 inch	⑤	④	③	②	①
b. Imagery: 12 inch	⑤	④	③	②	①
c. Imagery: 1 meter	⑤	④	③	②	①
d. Imagery: 2.5 meter	⑤	④	③	②	①
e. Elevation: sub-meter	⑤	④	③	②	①
f. Elevation: 3 meter	⑤	④	③	②	①
g. Elevation: 10 meter	⑤	④	③	②	①
h. Elevation: 30 meter	⑤	④	③	②	①
i. Lines/Areas: 1:12,000+	⑤	④	③	②	①
j. Lines/Areas: 1:24,000	⑤	④	③	②	①
k. Lines/Areas: 1:63,360	⑤	④	③	②	①
l. Lines/Areas: 1:100,000	⑤	④	③	②	①

14. Please rate the importance of other geospatial data you use regularly.

Geospatial Data	Very Important—mission critical. I couldn't do my work without this data	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use it from time to time, but it is not that important	I don't use it (nor does my agency)
a. Geology	⑤	④	③	②	①
b. Soils	⑤	④	③	②	①
c. Utilities	⑤	④	③	②	①
d. Zoning	⑤	④	③	②	①
e. Bathymetry	⑤	④	③	②	①
f. Ecological Systems (e.g. oak woodland, swale grassland, shrub steppe)	⑤	④	③	②	①
g. Biodiversity (species and ecosystems at risk)	⑤	④	③	②	①
h. Ground water	⑤	④	③	②	①
i. Wetlands	⑤	④	③	②	①
j. Watershed boundaries	⑤	④	③	②	①
k. Land use	⑤	④	③	②	①
l. Flood zones	⑤	④	③	②	①

m. Other 1– please list:	⑤	④	③	②	①
n. Other 2– please list:	⑤	④	③	②	①

15. Please discuss the three most important layers that you rated in the table in question 14.
___ (letter from table) 15.1 Discussion:

___ (letter from table) 15.2 Discussion:

___ (letter from table) 15.3 Discussion:

16. If you had three wishes for new *National Map* features, layers, or other functionality within the next three to five years, what would you wish for?
a.

b.

c.

17. *The National Map* as envisioned would be a source of seamless, continuously maintained, nationally consistent base geographic data. If this vision were fully achieved, would there be significant benefits accrued by your organization? Please describe these benefits.

a. Budget or staff time savings:
b. New applications enabled:
c. Time made available to focus on analysis:
d. Other:

18. What geospatial data sets do you acquire from other providers in order to complete your mission?
a.1 Data set_____ a.2 Provider _____
b.1 Data set_____ b.2 Provider _____
c.1 Data set_____ c.2 Provider _____

19. How do you modify USGS geospatial data that you receive?
a.1 data _____, a.2 modification _____
b.1 data _____, b.2 modification _____
c.1 data _____, c.2 modification _____

20. Question omitted from this version of interview guide

21. When you work with data from other organizations would you prefer to:
___a. download and maintain the data yourself (please discuss why_____)
___b. gain access through a web service (please discuss why_____)

22. Question omitted from this version of interview guide

23. Rate each of the following in terms of mission importance.

Geospatial Products or Services	Very Important—mission critical. I couldn't do my work without this data	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use it from time to time, but it is not that important	I don't use it (nor does my agency)
a. Printed maps	⑤	④	③	②	①
b. Pre-formatted digital maps ready for download and printing	⑤	④	③	②	①
c. Online map viewing service	⑤	④	③	②	①
d. Online geospatial data access service such as web feature service or web coverage service	⑤	④	③	②	①
e. Geospatial data file download/transfer service	⑤	④	③	②	①

24. Are there geospatial web services that you currently use to meet business needs?

Geospatial Products or Services	Very Important—mission critical. I couldn't do my work without this data	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use it from time to time, but it is not that important	I don't use it (nor does my agency)
a. Geospatial One Stop	⑤	④	③	②	①
b. National Atlas	⑤	④	③	②	①
c. *The National Map* Viewer	⑤	④	③	②	①
d. USGS Seamless Server	⑤	④	③	②	①
E. Google maps/ Google earth/ Microsoft Terraserver	⑤	④	③	②	①
f. State map viewer/services	⑤	④	③	②	①
g. County/city map viewers	⑤	④	③	②	①
h. Geographic Names Information System (GNIS)	⑤	④	③	②	①
i. Other:	⑤	④	③	②	①
j. Other:	⑤	④	③	②	①

25. If other advanced products, services, geospatial data layers, or features existed as part of *The National Map*, please rate how important they would be to you.

Other advanced products, services, geospatial data layers, or features	Very Important	Quite Important	Somewhat Important	Not Very Important	Not Important at all
a. Nationwide transportation routes	⑤	④	③	②	①
b. Nationwide transportation mileposts	⑤	④	③	②	①
c. Nationwide addresses linked to streets and/or structures	⑤	④	③	②	①
d. 3D fly across the United States	⑤	④	③	②	①
e. Citizen volunteer contributions to *The National Map*	⑤	④	③	②	①
f. Permanent IDs on all features	⑤	④	③	②	①
g. Historical geospatial data retention	⑤	④	③	②	①
h. Application toolkit for value added use of *The National Map* data or services (i.e. a software toolkit/viewer that can be customized to use with other's data, a plug and play front end)	⑤	④	③	②	①
i. Advanced integrated data models (e.g. recognize linkages between transportation, streams and bridge structures)	⑤	④	③	②	①
j. Geospatial features with cartographic offsets for improved published maps	⑤	④	③	②	①
k. Mobile device application or mapping services	⑤	④	③	②	①

TOPOGRAPHIC AND DRG QUESTIONS (All should answer at least questions 27 and 39. Only skip others if digital and printed topos are NEVER used {Q5}—most people have an opinion about these questions anyway)

26. USGS may use commercial datasets for the production of topographic map products. Any use of these datasets for other purposes would be restricted. As a customer, what would the impact of these restrictions have on your mission accomplishment?
    a. Minimal – I have no plans to create derivative products or to redistribute any *The National Map* data.
    b. Not very important – I may want to use *The National Map* data services in the future but have no concrete plans.
    c. Somewhat important – I would like to create value added products and services from these datasets but would find a way to use other sources for the licensed data.
    d. Important – I would routinely use *The National Map* data services and would find restrictions on reuse to have significant impacts on my organization.
    e. Very important – I have mission critical needs that would be addressed by *The National Map* data resources and I could not accept any use restrictions.

27. USGS acquires some data types from partners. Please rate how important it is to you for USGS to implement a quality control program for each of the following layers?	Scale: ⑤ = Critically important ③ = Somewhat important ① = Not very important
a. Roads	⑤ ④ ③ ② ①
b. Hydrography (water features)	⑤ ④ ③ ② ①
c. Contours	⑤ ④ ③ ② ①
d. Boundaries	⑤ ④ ③ ② ①
e. Names of features	⑤ ④ ③ ② ①

28. Do you have a requirement to create color separations from the digital topo map? For example, brown, blue, black, red and purple plates were created for the old topographic maps to support lithographic printing.
___a. No
___b. Yes. If yes, explain why:

29. Would you accept lower quality maps in order to achieve a higher production rate for the new digital topo maps? Please pick the hypothetical production/quality tradeoff that best suits your needs.
    a. 55,000 quads in 10 years (highest quality)
    b. 55,000 quads in 3 years (lower quality)
    c. 10,000 high quality quads and 45,000 lower quality quads in 5 years

30. Would you prefer to immediately print a one year old map from the Internet that was "pre-made" or would you prefer to wait 20 minutes to have the map created and printed from the most current data available? Please **rank** in order of importance from 1= highest importance to 3 = lowest importance.
___a. Prefer to print immediately (created and staged as a digital file ready to print)
___b. Prefer to wait 20 minutes to get the most current data (map on the fly)
___c. Both

31. What online features do you need for designing and printing a topo map?
    Please **rank** in order of importance from 1= highest importance to 5 = lowest importance.
___a. Ability to control the print scale
___b. Ability to pick and choose layers to be printed
___c. Ability to select the area of interest to be the center of the map
___d. Ability to select multiple print formats such as letter, legal, or ledger with map frames designed for each page size
___e. Ability to tile a standard 7.5 minute quad for printing on a home printer

32. Most existing USGS topographic maps are published on the NAD 27 datum, and do not have full UTM/USNG grid lines. How large of a problem is this to your organization? (pick one)
___a. This is a significant problem, preventing mission-critical operations
___b. This is a problem, but only in small ways or in unusual circumstances
___c. This is not a problem. Our work doesn't depend on printed grids and coordinates

33. What are you willing to pay per copy for a print-on-demand map printed to scale? (circle one)
a. $0, b. $10, c. $15, d. $20, e. $25, f. $30, g. $35

34. Would you use a local vendor such as FedEx Kinkos and pay the current price of $35 for a typical 24" x 36" map product?
___a. Yes, this is a good option for me
___b. No, my organization could print these in-house and usually we would
___c. No, we seldom or never use printed maps

35. Is it important that printed quads are available on different media types such as dimensionally stable paper and use water proof inks?
___a. Very important
___b. Somewhat important
___c. Not very important
___d. Not important at all

36. Please rank the following quality control issues in their order of importance for *The National Map* databases and the digital topo quad and ortho-image products. Please **rank** in order of importance from 1= highest importance to 4 = lowest importance.
____ a. Positional accuracy of features
____ b. Attribute accuracy of features
____ c. Completeness of features
____ d. Currency (recent date) of features

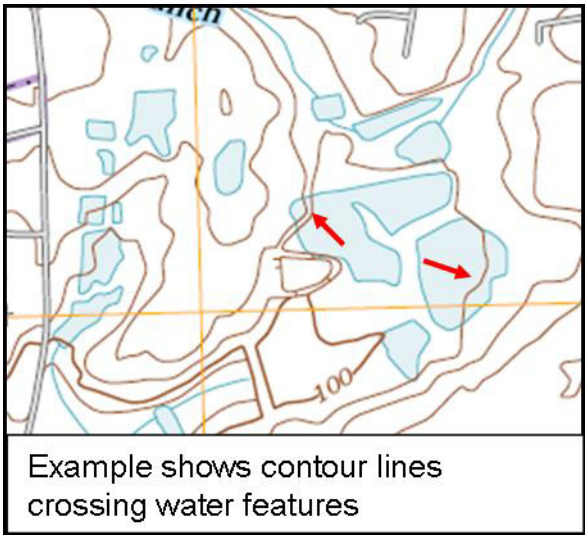
37. USGS plans to make the new topo quad and image maps as enhanced digital (computer readable) maps. USGS may include such features as GeoPDF or TIFF file format options and print on demand from the Internet. The topo quad would be viewable by standard GIS software and geo-referenced so that it could be used as a backdrop to other GIS data. This new product would **NOT** be available as a lithographic hardcopy print. Instead, it would be plotted by the customer or through a value added service provider. Would you find a plotted map to be an acceptable alternative to the lithographic print that has been available in the past?
___a. Completely satisfied with this approach
___b. Generally satisfied with this approach
___c. Somewhat satisfied, I occasionally need lithographic prints
___d. Dissatisfied, I need lithographic prints regularly

38. One feature under consideration for the digital topo map is the ability to "mark" attribute features and to create updates with geographic coordinates. These markups could be imported into a GIS and maps could be plotted by the user showing these markups. Please rate the importance of this feature.
___a. Very important feature, I would use it regularly
___b. Important feature
___c. Only somewhat important feature
___d. Unimportant feature, I would seldom use it

39. How acceptable are the feature conflicts described and illustrated below to your organization's business requirements.

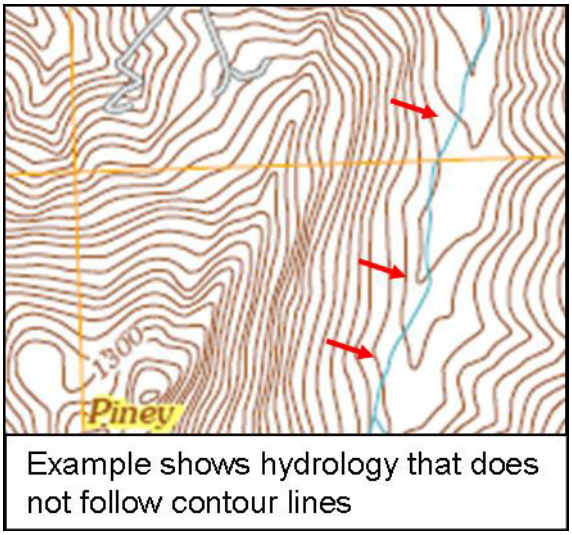
Scale:

③ = Fully Acceptable ② = Can live with it ① = Not acceptable	**Figure(s) or Illustration(s)**	**Feature Conflict**
③ ② ①	a. Figure 1	Contours to Open Water
③ ② ①	b. Figure 2	Contours to Natural Drains (Rivers – Streams)
③ ② ①	c. Figure 3a and 3b	Contours to transportation (Roads, Railroads)
③ ② ①	d. Figure 4a and 4b	Feature Overprints
③ ② ①	e. Figure 5	Hydrography Stream to Orthophoto Image
③ ② ①	f. Figure 6	Hydrography Lake to Orthophoto Image
③ ② ①	g. Figure 7	County Boundary is incorrect



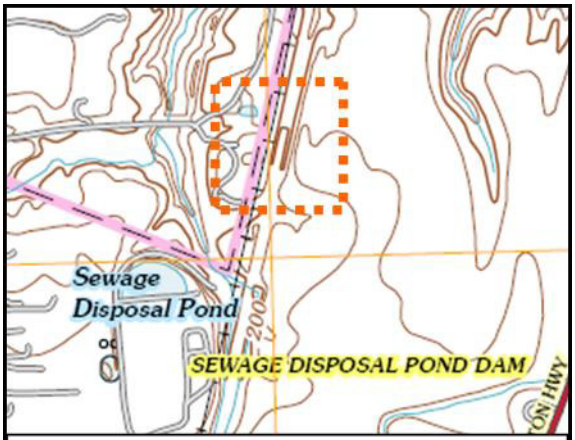
Example shows contour lines crossing water features

Figure 1



Example shows hydrology that does not follow contour lines

Figure 2

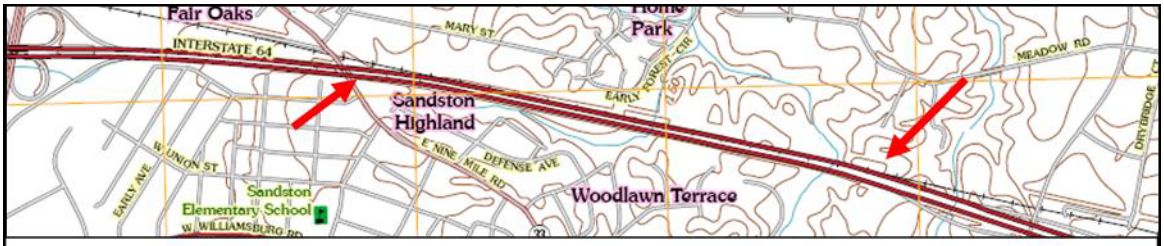


Example shows grade cut in contour that is not aligned with railroad

Figure3a

Example of contour lines that were not updated to show the road cuts

Figure 3b



Example shows railroad and interstate road features that are not offset on map

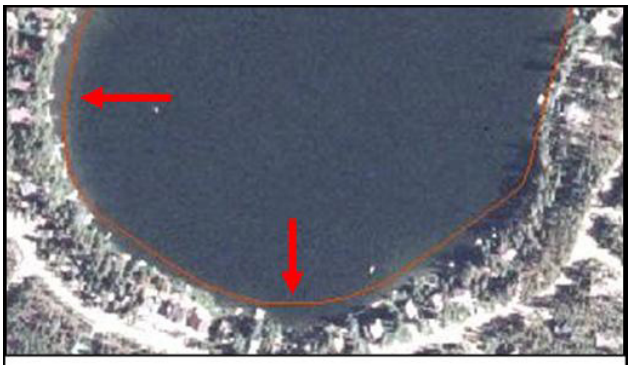
Figure 4a

Names are "over posting" other cartographic features in this example

Figure 4b

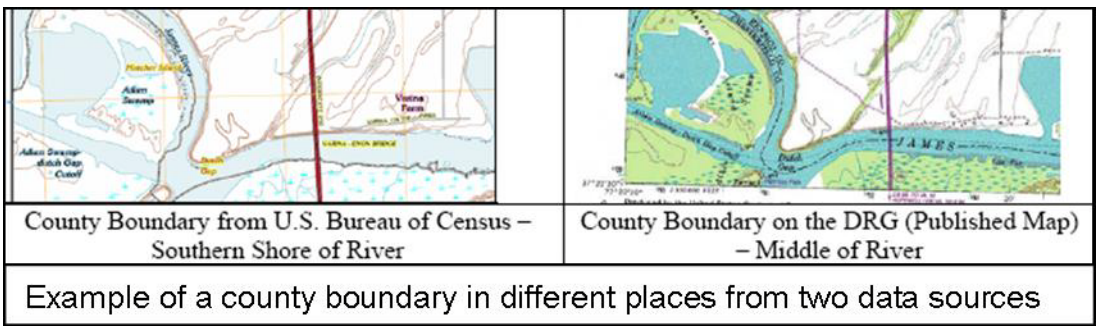
Hydrography data shown in red does not match the newer ortho image.

Figure 5



Shoreline data in red does not align with the ortho image shoreline

Figure 6



County Boundary from U.S. Bureau of Census – Southern Shore of River

County Boundary on the DRG (Published Map) – Middle of River

Example of a county boundary in different places from two data sources

Figure 7

40. How acceptable is it to show features on a digital topo quad from smaller scale sources, such as vegetation or urban area (impervious surface) tint from 1:100,000-scale Medium Resolution Land Cover dataset? (see figure 8 below)

___a. Very acceptable
___b. Acceptable
___c. Not very acceptable
___d. Not acceptable at all

40a. Why or why not? _____

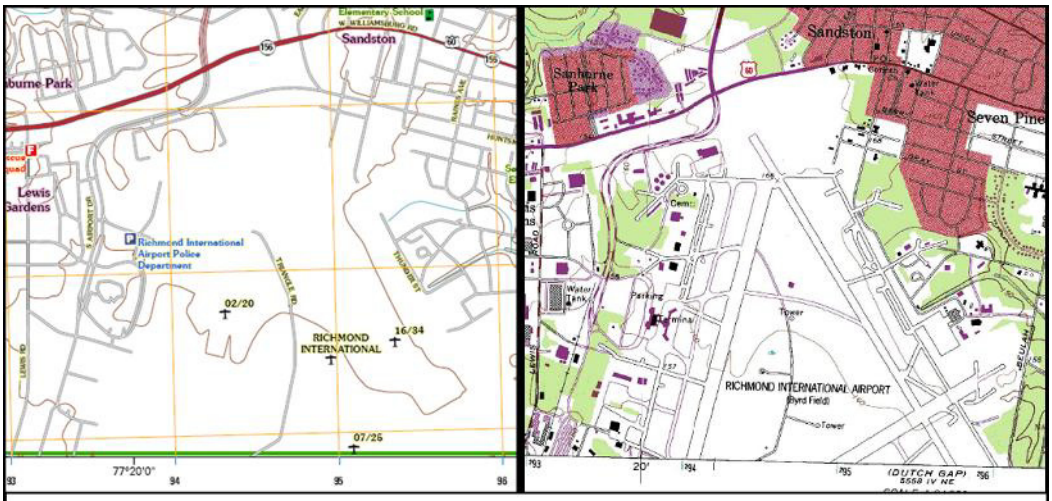
Vegetation and urban "tint" image on left was created from the National Land Cover Data medium resolution data. The photo and topographic map images are for reference only.

Figure 8.

41. Is it acceptable to publish some digital topo quads that are more feature rich than others? For example, sometimes data may be available in one area but features such as pipelines, power lines, airport runways, springs, and wells are missing in other areas. (Figure 9, New Map on left illustrates this missing data feature).

___a. Very acceptable
___b. Acceptable
___c. Not very acceptable
___d. Not acceptable at all

41a. Why or why not? _____

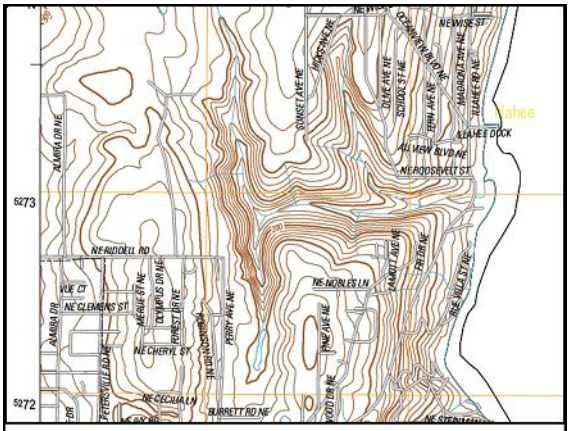


Example on left shows airports as point locations. Image on right shows airport detail.

Figure 9.

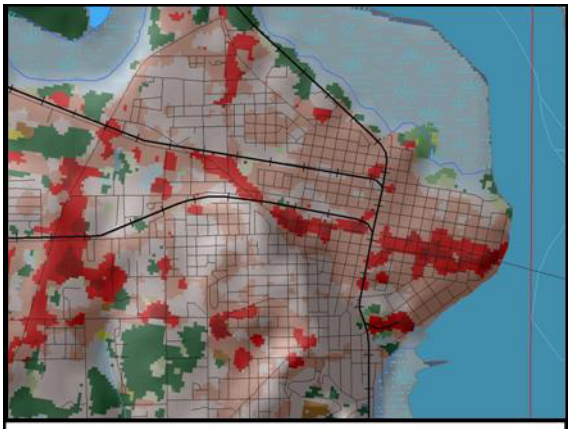
42. Which of the four options in Figure 10 below do you prefer to display topography and relief features on the digital topo quad? Identify your 1st and 2nd choices.

___ a. Contours on digital topo
___ b. Draping the imagery and line features over a 3-D relief model
___ c. Shaded relief with elevation color bands
___ d. Combination of shaded relief and contours
___ e. Combination of drape with contours (no figure available-but like figure 10b with contours added)



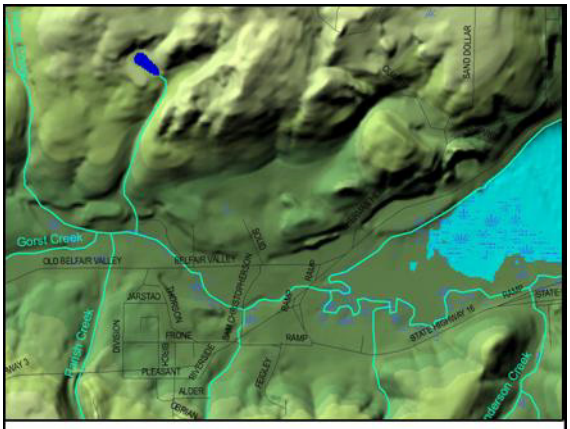
Example of contours with no shaded relief (traditional topo map)

Figure 10a



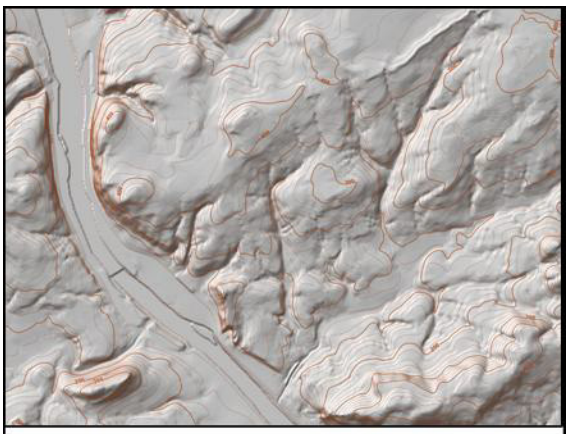
Example of draped line features over 3-D relief model

Figure 10b



Shaded relief with elevation bands (no contours)

Figure 10c



Combination of shaded relief with contours

Figure 10d

43. Would you find the level of metadata detail in figure 11 below to be sufficient for your purposes of the printed map product (as shown below) if you also could get access to more metadata on the *The National Map* website?

___a. Too much detail. Why? _____

___b. Just right

___c. Not enough detail. Why? _____

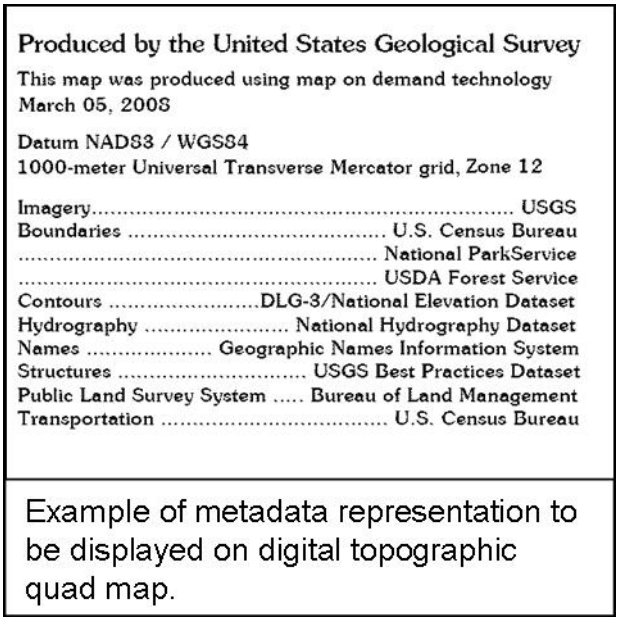
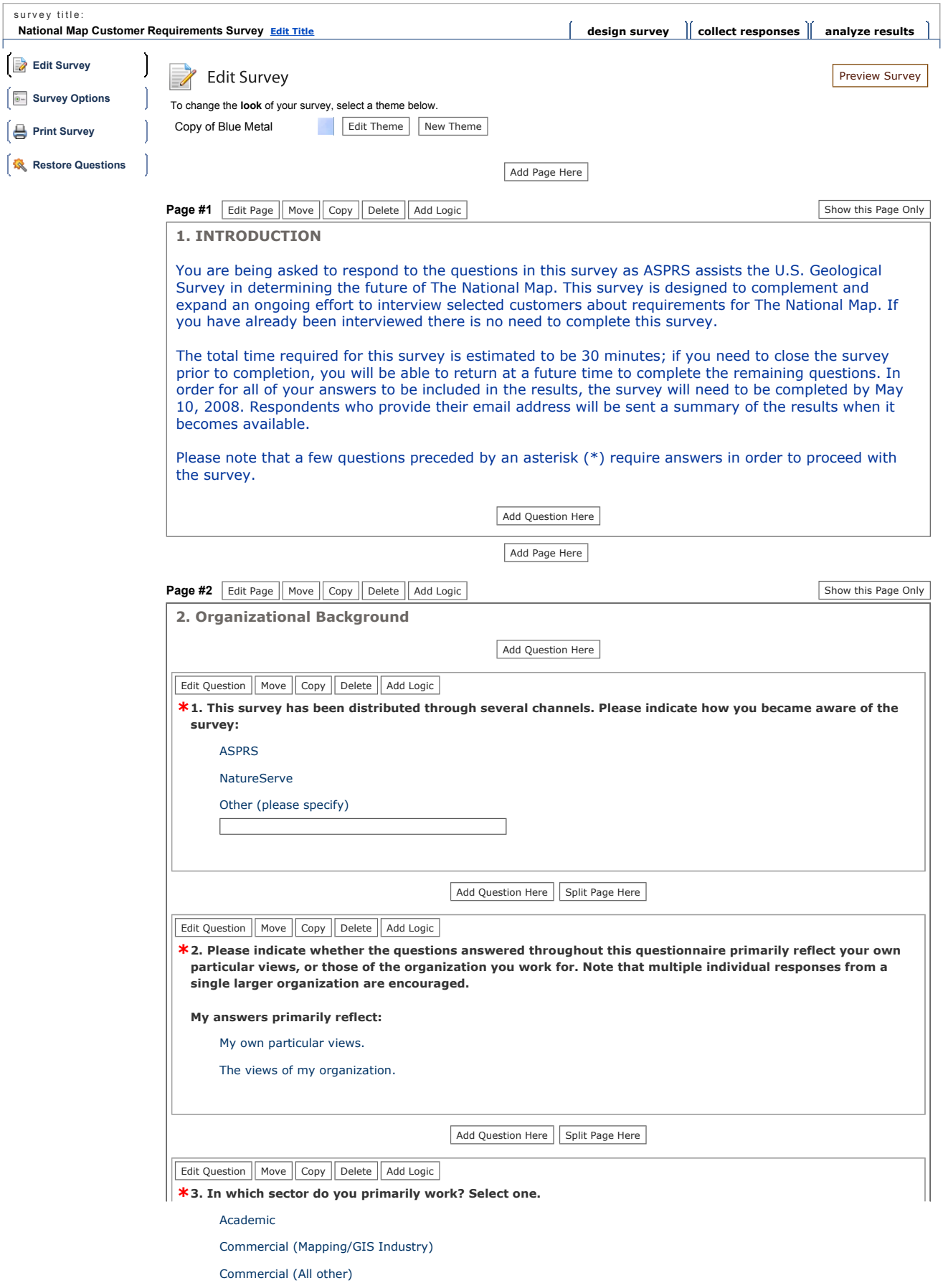


Figure 11.

Appendix B. American Society for Photogrammetry and Remote Sensing (ASPRS) Survey Questions

[The ASPRS and the International Map Trade Association (IMTA) surveyed their memberships. These surveys were administered by the ASPRS by use of an online survey tool, and the questions (reproduced in this appendix B) were nearly identical to the USGS structured interview guide (appendix A)]



Non-Governmental Organization

Other Not for Profit

Local (County, Parish, Municipal) Government

State, Provincial or Tribal Government

Federal or National Government

Other (please specify)

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Edit Logic (5)

* **4. Please describe the geographic scope of your organization.**

Global

United States

State- or Territory-wide

Local Government

Other (please specify)

Add Question Here

Add Page Here

Page #3 Edit Page | Move | Copy | Delete | Edit Logic | Show this Page Only

3. Geographic Scope State

Add Question Here

Edit Question | Move | Copy | Delete | Add Logic

1. Which State(s) or Territory(ies)?

ALABAMA

ALASKA

AMERICAN SAMOA

ARIZONA

ARKANSAS

CALIFORNIA

COLORADO

CONNECTICUT

DELAWARE

DISTRICT OF COLUMBIA

FEDERATED STATES OF MICRONESIA

FLORIDA

GEORGIA

GUAM

HAWAII

IDAHO

ILLINOIS

INDIANA

IOWA

KANSAS

KENTUCKY

LOUISIANA

MAINE

MARSHALL ISLANDS

MARYLAND
MASSACHUSETTS
MICHIGAN
MINNESOTA
MISSISSIPPI
MISSOURI
MONTANA
NEBRASKA
NEVADA
NEW HAMPSHIRE
NEW JERSEY
NEW MEXICO
NEW YORK
NORTH CAROLINA
NORTH DAKOTA
NORTHERN MARIANA ISLANDS
OHIO
OKLAHOMA
OREGON
PALAU
PENNSYLVANIA
PUERTO RICO
RHODE ISLAND
SOUTH CAROLINA
SOUTH DAKOTA
TENNESSEE
TEXAS
UTAH
VERMONT
VIRGIN ISLANDS
VIRGINIA
WASHINGTON
WEST VIRGINIA
WISCONSIN
WYOMING

Add Question Here

Add Page Here

Page #4 Edit Page | Move | Copy | Delete | Edit Logic | Show this Page Only

4. Geographic Scope Local

Add Question Here

Edit Question | Move | Copy | Delete

1. Which local jurisdiction(s)?

1
2
3
4
5

Add Question Here

Add Page Here

Page #5 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

5. Organizational Background (cont.)

Add Question Here

Edit Question | Move | Copy | Delete

* **1. Which of the following are significant functional areas that utilize GIS in your organization? Please check up to five.**

	1st area	2nd area	3rd area	4th area	5th area
Agricultural practices					
Climate change					
Defense and homeland security					
Economic development					
Ecosystems, biodiversity and resource conservation					
Energy and mineral resources					
Geography awareness (education)					
Human health and the environment					
Human services					
Infrastructure development and maintenance					
Natural hazards assessment and emergency response					
Natural resource and land management					
Recreation					
Regulation of pollutants and other contaminants					
Water quantity and quality					
Community development and growth management					
Law enforcement					

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. What is the mission of your organization?

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

* **3. How many employees are in the organization that you work for?**

- <5
- 5-19
- 20-49
- 50-99
- 99-199
- 200-499
- >500

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

4. What is your role in the organization?

Add Question Here

Add Page Here

Page #6 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

6. Organizational Background (cont)

Add Question Here

Edit Question | Move | Copy | Delete

1. Within your organization, who are the 3 – 5 major internal consumers of GIS or mapping services?

1
2
3
4
5

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. If you provide GIS services to customers outside of your organization, please list the 3 – 5 major consumers (or consumer groups) of your services.

1
2
3
4
5

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

* **3. Across your organization, would you describe the workforce sophistication with GIS technology as:**

Highly advanced – GIS is actively used throughout the organization for complex analysis.

Sophisticated – GIS applications are developed to support some business activities and GIS analysis is generally provided by a GIS support group.

Intermediate – GIS is used in some parts of the organization and we are on a significant growth trajectory.

Novice – GIS is being used in a limited part of the organization. We do not create any of our own software applications that use GIS.

Map user - We are not skilled in GIS but we use map products.

No opinion

Add Question Here

Add Page Here

Page #7 Edit Page | Move | Copy | Delete | Edit Logic | Show this Page Only

7. Business Requirements Focus

Add Question Here

Edit Question | Move | Copy | Delete

1. Please list up to five business activities within your organization that are highly dependant on geospatial information.

1. a.
1. b.
1. c.
1. d.

1. e.

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. Do any of the activities listed above require that you access geospatial data from outside of your jurisdictional boundaries (e.g. across State lines, across international lines… for watershed assessment, regional development…)? If so, please describe what these activities are and how you meet these requirements, that is, where do you get the data you need.

Item a. above:

Item b. above:

Item c. above:

Item d. above:

Item e. above:

Add Question Here

Add Page Here

Page #8 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

8. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete | Add Logic

1. If you use topographic maps, how do/would you use a digital topo map in the field? (check all that apply)

I don't use them

Primarily as a printed product

Primarily as a stand alone digital product on a laptop or handheld computer

Primarily as a digital product on a laptop or handheld computer with additional data display, data entry or digital markup and editing capability

Other (please specify):

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

2. If you use scanned (digital) or printed USGS topographic maps how important are they to your work?

Very Important—mission critical. I couldn't do my work without this feature

Quite Important—mission relevant. I need it, but can make due without it

Somewhat Important—It's not always needed to complete the mission, but is helpful

Not Very Important—I use them from time to time, but they are not that important

I don't use them (nor does my agency)

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

3. Have you completed a formal assessment of your mission critical geospatial information needs? Is there a report on the internet that you can share with us? (Please provide the URL or make note of how to follow-up if it is not available on the Internet).

Add Question Here

Add Page Here

Page #9 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

9. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete

1. Please identify / rank the 7 most important base geospatial data layers listed below relative to your organization's business requirements. Please base the rank for these layers on their basis as DATA. (FYI--We will rank the same layers in terms of display on Digital TOPOGRAPHIC maps in the next set of questions.)

	Most important (1)	2	3	4	5	6	Important (7)
a. Orthoimagery							
b. Transportation – Public streets/roads							
c. Transportation – Airports							
d. Transportation – Railroads							
e. Transportation – Trails							
f. Transportation – Other routes such as forest roads generally closed to the public							
g. Vertical and horizontal control							
h. Pipelines and powerlines							
i. Structures – rural areas							
j. Structures – selected public buildings such as schools, hospitals, courthouse							
k. Structures – Urban area designation (tint)							
l. Land cover (i.e. vegetation, built, wetlands, grasslands)							
m. Vegetation – woodland tint (subset of landcover)							
n. Elevation							
o. Geographic names							
p. Boundaries - Public Land Survey System (section, township, range)							
q. Boundaries – Civil boundaries to include city, county, state, international							
r. Boundaries – Federal and Native American lands							
s. Hydrography – Surface water							
t. Springs and wells							
u. Physiographic feature names (mountain, valley, canyon, plain, etc.)							
v. Parcels							

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. Please identify / rank the 7 least important base geospatial data layers listed below relative to your organization's business requirements. Please base the rank for these layers on their basis as DATA in a manner similar to the last question. (FYI--We will rank the same layers in terms of display on Digital TOPOGRAPHIC maps in the next set of questions.)

	Least Important (1)	2	3	4	5	6	Important (7)
a. Orthoimagery							
b. Transportation – Public streets/roads							
c. Transportation – Airports							
d. Transportation – Railroads							
e. Transportation – Trails							
f. Transportation – Other routes such as forest roads generally closed to the public							
g. Vertical and horizontal control							
h. Pipelines and powerlines							

i. Structures – rural areas

j. Structures – selected public buildings such as schools, hospitals, courthouse

k. Structures – Urban area designation (tint)

l. Land cover (i.e. vegetation, built, wetlands, grasslands)

m. Vegetation – woodland tint (subset of landcover)

n. Elevation

o. Geographic names

p. Boundaries - Public Land Survey System (section, township, range)

q. Boundaries – Civil boundaries to include city, county, state, international

r. Boundaries – Federal and Native American lands

s. Hydrography – Surface water

t. Springs and wells

u. Physiographic feature names (mountain, valley, canyon, plain, etc.)

v. Parcels

Add Question Here

Add Page Here

Page #10 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

10. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete

1. Please identify / rank the 7 most important base geospatial data layers listed below relative to your organization's business requirements. Please rank these layers for use in display on Digital TOPOGRAPHIC maps.

	Most important (1)	2	3	4	5	6	Important (7)
a. Orthoimagery							
b. Transportation – Public streets/roads							
c. Transportation – Airports							
d. Transportation – Railroads							
e. Transportation – Trails							
f. Transportation – Other routes such as forest roads generally closed to the public							
g. Vertical and horizontal control							
h. Pipelines and powerlines							
i. Structures – rural areas							
j. Structures – selected public buildings such as schools, hospitals, courthouse							
k. Structures – Urban area designation (tint)							
l. Land cover (i.e. vegetation, built, wetlands, grasslands)							
m. Vegetation – woodland tint (subset of landcover)							
n. Elevation							
o. Geographic names							
p. Boundaries - Public Land Survey System (section, township, range)							
q. Boundaries – Civil boundaries to include city, county, state, international							
r. Boundaries – Federal and Native American lands							
s. Hydrography – Surface water							

t. Springs and wells

u. Physiographic feature names (mountain, valley, canyon, plain, etc.)

v. Parcels

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. Please identify/rank the 7 least important base geospatial data layers listed below relative to your organization's business requirements. Please rank these layers for use in display on Digital TOPOGRAPHIC maps.

	Least Important (1)	2	3	4	5	6	Important (7)
a. Orthoimagery							
b. Transportation – Public streets/roads							
c. Transportation – Airports							
d. Transportation – Railroads							
e. Transportation – Trails							
f. Transportation – Other routes such as forest roads generally closed to the public							
g. Vertical and horizontal control							
h. Pipelines and powerlines							
i. Structures – rural areas							
j. Structures – selected public buildings such as schools, hospitals, courthouse							
k. Structures – Urban area designation (tint)							
l. Land cover (i.e. vegetation, built, wetlands, grasslands)							
m. Vegetation – woodland tint (subset of landcover)							
n. Elevation							
o. Geographic names							
p. Boundaries - Public Land Survey System (section, township, range)							
q. Boundaries – Civil boundaries to include city, county, state, international							
r. Boundaries – Federal and Native American lands							
s. Hydrography – Surface water							
t. Springs and wells							
u. Physiographic feature names (mountain, valley, canyon, plain, etc.)							
v. Parcels							

Add Question Here

Add Page Here

Page #11 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

11. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete

1. What update cycle would you consider to be minimally acceptable for the following base geospatial data layers in order to meet your mission critical needs?

	Daily or per transaction	≤ 1 mo	≤ 1 yr	≤ 3 yrs	≤ 5 yrs	≤ 10 yrs	>10 yrs
a. Orthoimagery							
b. Transportation – Public streets/roads							

c. Transportation – Airports							
d. Transportation – Railroads							
e. Transportation – Trails							
f. Transportation – Other routes such as forest roads generally closed to the public							
g. Vertical and horizontal control							
h. Pipelines and powerlines							
i. Structures – rural areas							
j. Structures – selected public buildings such as schools, hospitals, courthouse							
k. Structures – Urban area designation (tint)							
l. Land cover (i.e. vegetation, built, wetlands, grasslands)							
m. Vegetation – woodland tint (subset of landcover)							
n. Elevation							
o. Geographic names							
p. Boundaries - Public Land Survey System (section, township, range)							
q. Boundaries – Civil boundaries to include city, county, state, international							
r. Boundaries – Federal and Native American lands							
s. Hydrography – Surface water							
t. Springs and wells							
u. Physiographic feature names (mountain, valley, canyon, plain, etc.)							
v. Parcels							

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

2. For which layers do you need archival or historical data?

a. Orthoimagery

b. Transportation – Public streets/roads

c. Transportation – Airports

d. Transportation – Railroads

e. Transportation – Trails

f. Transportation – Other routes such as forest roads generally closed to the public

g. Vertical and horizontal control

h. Pipelines and powerlines

i. Structures – rural areas

j. Structures – selected public buildings such as schools, hospitals, courthouse

k. Structures – Urban area designation (tint)

l. Land cover (i.e. vegetation, built, wetlands, grasslands)

m. Vegetation – woodland tint (subset of landcover)

n. Elevation

o. Geographic names

p. Boundaries - Public Land Survey System (section, township, range)

q. Boundaries – Civil boundaries to include city, county, state, international

r. Boundaries – Federal and Native American lands

s. Hydrography – Surface water

t. Springs and wells

u. Physiographic feature names (mountain, valley, canyon, plain, etc.)

v. Parcels

Add Question Here

Add Page Here

Page #12 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

12. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete

1. Rate each of the following on importance of the resolution/scale for which you need geospatial data?

	Very Important—mission critical. I couldn't do my work without this feature	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use them from time to time, but they are not that important	I don't use them (nor does my agency)
a. Imagery: 6 inch					
b. Imagery: 12 inch					
c. Imagery: 1 meter					
d. Imagery: 2.5 meter					
e. Elevation: sub-meter					
f. Elevation: 3 meter					
g. Elevation: 10 meter					
h. Elevation: 30 meter					
i. Lines/Areas: 1:12,000+					
j. Lines/Areas: 1:24,000					
k. Lines/Areas: 1:63,360					
l. Lines/Areas: 1:100,000					

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. Please rate the importance of other geospatial data you use regularly?

	Very Important—mission critical. I couldn't do my work without this feature	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use them from time to time, but they are not that important	I don't use them (nor does my agency)
a. Geology					
b. Soils					
c. Utilities					
d. Zoning					
e. Bathymetry					
f. Ecological Systems (e.g. oak woodland, swale grassland, shrub steppe)					
g. Biodiversity (threatened or at risk species and ecosystems)					
h. Ground water					
i. Wetlands					
j. Watershed boundaries					
k. Land use					
l. Flood zones					

list below:

n. Other #2 – please list below:

Other (please specify)

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

3. Please discuss the MOST important layers that you rated in the table in question 2 above. Please include the letter from table.

Most important

Second most important

Third most important

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

4. If you had three wishes for NEW National Map features, layers, or other functionality within the next three to five years, what would you wish for?

First

Second

Third

Add Question Here

Add Page Here

Page #13 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

13. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete

1. The National Map as envisioned would be a source of seamless, continuously maintained, nationally consistent base geographic data. If this vision were fully achieved, would there be significant benefits accrued by your organization? Please describe these benefits.

Budget or staff time savings:

New applications enabled:

Time made available to focus on analysis:

Other:

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. What geospatial data sets do you currently acquire from other providers in order to complete your mission?

a Data set

b Data set

c Data set

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

3. Please list the Data Provider for each geospatial data set you listed above (a, b and c).

a Data set provider

b Data set provider

c Data set provider

Add Question Here

Add Page Here

Page #14 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

14. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete

1. If you currently modify USGS geospatial data to support your mission, which data sets must be modified?

a Data set

b Data set

c Data set

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. Please describe the modifications required for each geospatial data set you listed above (a, b and c).

a Data set mods

b Data set mods

c Data set mods

Add Question Here

Add Page Here

Page #15 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

15. Business Requirements Focus cont.

Add Question Here

Edit Question | Move | Copy | Delete | Add Logic

1. When you work with data from other organizations would you prefer to:

download and maintain the data yourself

gain access through a web service

Please discuss why

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. Please describe your use of the following Geospatial Products or Services from USGS:

	Daily	Weekly	Monthly	Yearly	Don't use
a. The National Map viewer					
b. The National Map seamless server					
c. The National Hydrographic Dataset (NHD) viewer					
d. Geographic Names Information System (GNIS)					
e. The USGS store					
f. 7.5 minute printed topographic map					
g. 7.5 minute scanned topo map (DRG)					
h. Orthoimagery					
i. National Elevation Dataset (NED)					
j. National LandCover Dataset (NLCD)					
k.National Hydrographic Dataset (NHD)					

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

3. Please rate each of the following in terms of mission importance:

	Very Important—mission critical. I couldn't do my work without this feature	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use them from time to time, but they are not that important	I don't use them (nor does my agency)
a. Printed maps					
b. Pre-formatted digital maps ready for download and printing					
c. Online map viewing service					
d. Online geospatial data access service such as web feature service or web coverage service					
e. Geospatial data file download/transfer service					

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

4. Are there geospatial web services that you currently use to meet business needs?

	Very Important—mission critical. I couldn't do my work without this feature	Quite Important—mission relevant. I need it, but can make due without it	Somewhat Important—It isn't always needed to complete the mission, but it is helpful	Not Very Important—I use them from time to time, but they are not that important	I don't use them (nor does my agency)
a. Geospatial One Stop					
b. National Atlas					
c. The National Map Viewer					
d. USGS Seamless Server					
e. Google maps/ Google earth/ Microsoft					
f. State map services or viewers					
g. County or city map services or viewers					
h. Geographic Names Information System (GNIS)					
i. Other 1 (please specify below)					
j. Other 2 (please specify below)					

For items i and j, please specify

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

5. If other advanced products, services, geospatial data layers, or features existed as part of The National Map, please rate how important they would be to you.

	Very Important	Quite Important	Somewhat Important	Not Very Important	Not Important at all
a. Nationwide transportation routes					
b. Nationwide transportation mileposts					

structures					
d. 3D fly across the United States					
e. Citizen volunteer contributions to The National Map					
f. Permanent IDs on all features					
g. Historical geospatial data retention					
h. Application toolkit for value added resellers of The National Map data or services (e.g. a software toolkit that can be customized to use with other's data, a plug and play front end)					
i. Advanced integrated data models (e.g. recognize linkages between transportation, streams and bridge structures)					
j. Geospatial features with cartographic offsets for improved published maps					
k. Mobile device application or mapping services					

Add Question Here

Add Page Here

Page #16 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

16. TOPOGRAPHIC AND DRG QUESTIONS

Add Question Here

Edit Question | Move | Copy | Delete | Add Logic

1. USGS may use commercial datasets for the production of topographic map products. Any use of these datasets for other purposes would be restricted. As a customer, what would the impact of these restrictions have on your mission accomplishment?

Minimal – I have no plans to create derivative products or to redistribute any TNM data.

Not very important – I may want to use TNM data services in the future but have no concrete plans.

Somewhat important – I would like to create value added products and services from these datasets but would find a way to use other sources for the licensed data.

Important – I would routinely use TNM data services and would find restrictions on reuse to have significant impacts on my organization.

Very important – I have mission critical needs that would be addressed by TNM data resources and I could not accept any use restrictions.

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

2. USGS acquires some data types from partners. Please rate how important it is to you for USGS to implement a quality control program for each of the following layers?

	5-Critically important	4	3-Somewhat important	2	1-Not very important
a. Roads					
b. Hydrography (water features)					
c. Contours					
d. Boundaries					
e. Names of features					

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

3. Do you have a requirement to create color separations from the digital topo map? For example, brown, blue, black, red and purple plates were created for the old topographic maps to support lithographic printing.

No

Yes

If yes, please explain why:

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

4. Would you accept lower quality maps in order to achieve a higher production rate for the new digital topo maps? Please pick the hypothetical production/quality tradeoff that best suits your needs.

55,000 quads in 10 years (highest quality)

55,000 quads in 3 years (lower quality)

10,000 high quality quads and 45,000 lower quality quads in 5 years

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

5. Would you prefer to immediately print a one year old map from the Internet that was "pre-made" or would you prefer to wait 20 minutes to have the map created and printed from the most current data available? Please rank in order of importance from 1= highest importance to 3 = lowest importance.

	1-Highest importantance	2	3-Lowest importantance
Prefer to print immediately (created and staged as a digital file ready to print)			
Prefer to wait 20 minutes to get the most current data (map on the fly)			
Both			

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

6. What online features do you need for designing and printing a topo map? Please rank in order of importance from 1= highest importance to 5 = lowest importance.

	1-Highest importantance	2	3	4	5-Lowest importantance
Ability to control the print scale					
Ability to pick and choose layers to be printed					
Ability to select the area of interest to be the center of the map					
Ability to select multiple print formats such as letter, legal, or ledger with map frames designed for each page size					
Ability to tile a standard 7.5 minute quad for printing on a home printer					

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

7. Most existing USGS topographic maps are published on the NAD 27 datum, and do not have full UTM/USNG grid lines. How large of a problem is this to your organization? (pick one)

This is a significant problem, preventing mission-critical operations

This is a problem, but only in small ways or in unusual circumstances

This is not a problem. Our work doesn't depend on printed grids and coordinates

Add Question Here

Add Page Here

Page #17 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

17. TOPOGRAPHIC AND DRG QUESTIONS cont.

Add Question Here

Edit Question | Move | Copy | Delete | Add Logic

1. What are you willing to pay per copy for a print-on-demand map printed to scale? (pick one)

$0

$10

$15

$20

$25

$30

$35

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

2. Would you use a local vendor such as FedEx Kinkos and pay the current price of $35 for a typical 24" x 30" map product?

Yes, this is a good option for me

No, my organization could print these in-house and usually we would

No, we seldom or never use printed maps

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

3. Is it important that printed quads are available on different media types such as dimensionally stable paper and use water proof inks?

Very important

Somewhat important

Not very important

Not important at all

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

4. Please rank the following quality control issues in their order of importance for The National Map databases and the digital topo quad and ortho-image products. Please rank in order of importance from 1= highest importance to 4 = lowest importance.

	1-highest importance	2	3	4-lowest importance
Positional accuracy of features				
Attribute accuracy of features				
Completeness of features				
Currency (recent date) of features				

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

5. USGS plans to make the new topo quad and image maps as enhanced digital (computer readable) maps. USGS may include such features as GeoPDF or TIFF file format options and print on demand from the Internet. The topo quad would be viewable by standard GIS software and geo-referenced so that it could be used as a backdrop to other GIS data. This new product would NOT be available as a lithographic hardcopy print. Instead, it would be plotted by the customer or through a value added service provider. Would you find a plotted map to be an acceptable alternative to the lithographic print that has been available in the past?

Completely satisfied with this approach

Generally satisfied with this approach

Somewhat satisfied, I occasionally need lithographic prints

Dissatisfied, I need lithographic prints regularly

Add Question Here | Split Page Here

6. One feature under consideration for the digital topo map is the ability to "mark" attribute features and to create updates with geographic coordinates. These markups could be imported into a GIS and maps could be plotted by the user showing these markups. Please rate the importance of this feature.

Very important feature, I would use it regularly

Important feature

Only somewhat important feature

Unimportant feature, I would seldom use it

Add Question Here

Add Page Here

Page #18 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

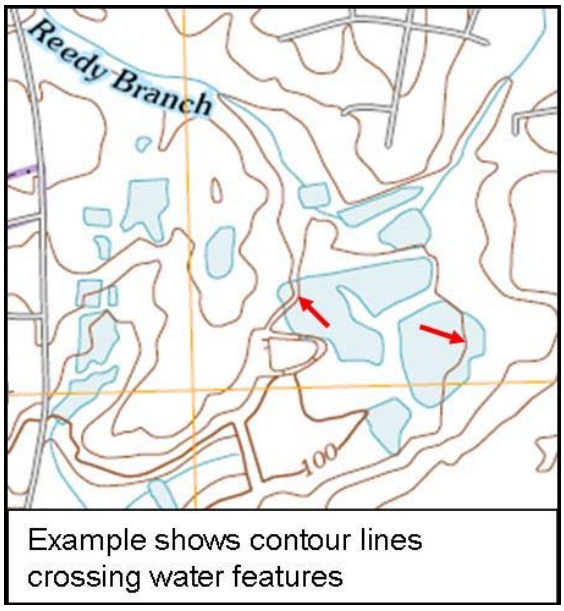
18. Topographic Feature Conflicts

Note: There are two images on this page--please wait for them to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

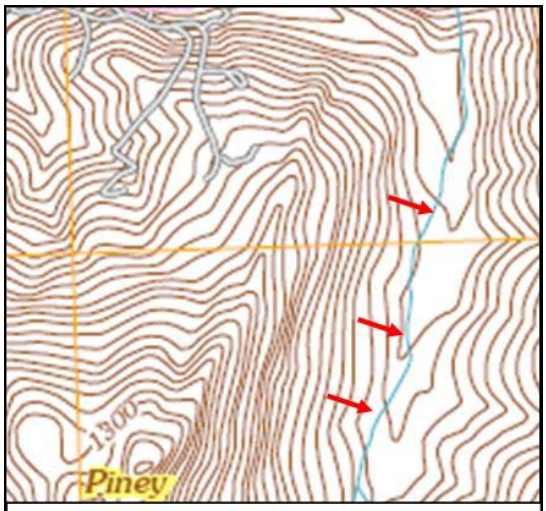
Figure 1



Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 2



Example shows hydrology that does not follow contour lines

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

1. How acceptable are the feature conflicts illustrated above and described below to your organization's business requirements.

	Fully Acceptable	Can live with it	Not acceptable	No opinion
Figure 1: Contours to Open Water				
Figure 2: Contours to Natural Drains (Rivers – Streams)				

Add Question Here

Add Page Here

Page #19 Edit Page | Move | Copy | Delete | Add Logic

Show this Page Only

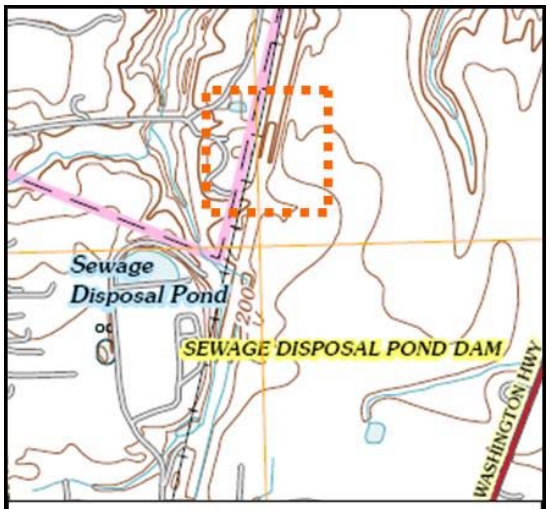
19. Topographic Feature Conflicts

Note: There are two images on this page--please wait for them to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

Figure 3a

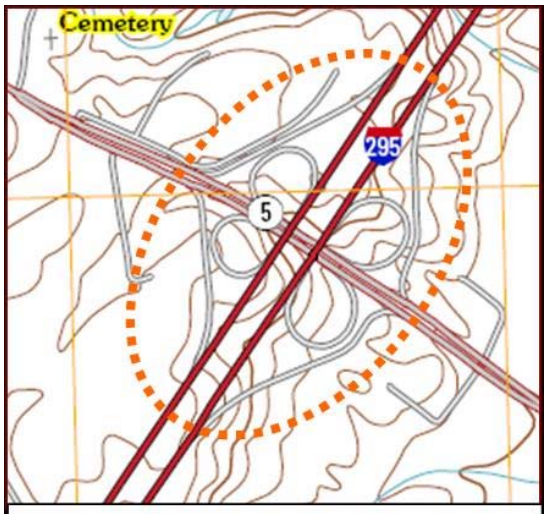


Example shows grade cut in contour that is not aligned with railroad

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 3b



Example shows contour lines that were not updated to show the road cuts

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

1. How acceptable are the feature conflicts illustrated above and described below to your organization's business requirements.

	Fully Acceptable	Can live with it	Not acceptable	No opinion
Figures 3a: Contours to transportation (Railroads)				
Figures 3b: Contours to transportation (Roads)				

Add Question Here

Add Page Here

Page #20 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

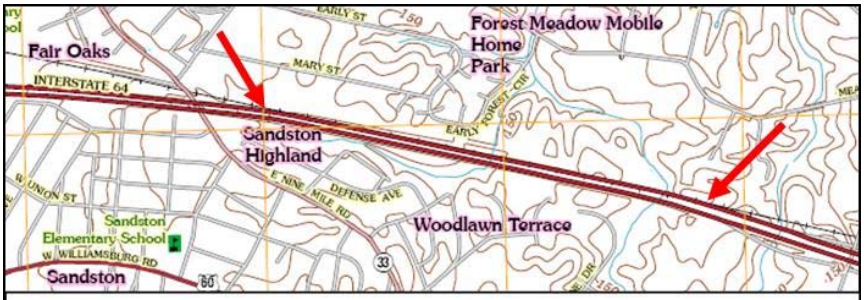
20. Topographic Feature Conflicts (cont.)

Note: There are three images on this page--please wait for them to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

Figure 4a



Example shows railroad and interstate route features that are not offset on published map

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

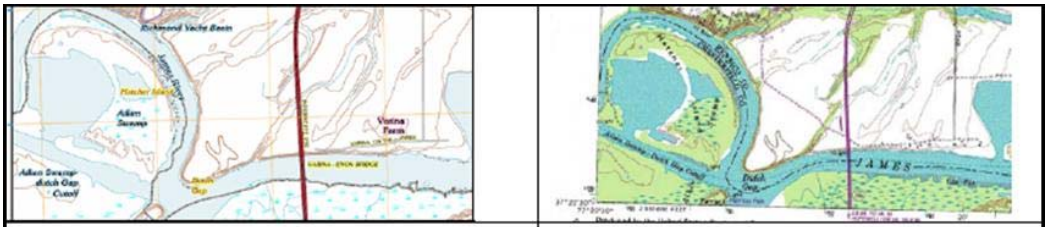
Figure 4b

Names are "over posting" other cartographic features in this example

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 5



County Boundary from U.S. Bureau of Census – Southern Shore of River

County Boundary on the DRG (Published Map) – Middle of River

Example of a county boundary in different places from two data sources

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

1. How acceptable are the feature conflicts illustrated above and described below to your organization's business requirements.

	Fully Acceptable	Can live with it	Not acceptable	No opinion
Figures 4a & 4b: Feature Overprints				
Figure 5: County Boundary is incorrect				

Add Question Here

Add Page Here

Page #21 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

21. Topographic Feature Conflicts (cont.)

Note: There are two images on this page--please wait for them to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

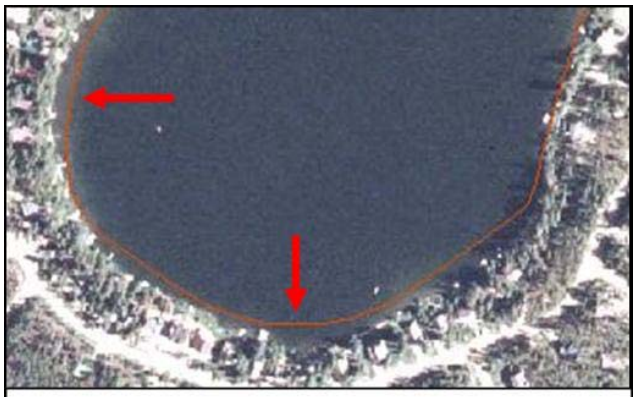
Figure 6

Hydrography data shown in red does not match the newer ortho image.

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 7



Shoreline data in red does not align with the ortho image shoreline

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

1. How acceptable are the feature conflicts illustrated above and described below to your organization's business requirements.

	Fully Acceptable	Can live with it	Not acceptable	No opinion
Figure 6: Hydrography Stream to Orthophoto Image				
Figure 7: Hydrography Lake to Orthophoto Image				

Add Question Here

Add Page Here

Page #22 Edit Page | Move | Copy | Delete | Add Logic — Show this Page Only

22. Topographic Feature Conflicts (cont.)

Note: There are two images on this page--please wait for them to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

Figure 8

The Vegetation and Urban "tint" image on the left was created from the National Land Cover Data medium resolution data. The photo image and topographic map images are for reference only.

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

1. How acceptable is it to show features on a digital topo quad from smaller scale sources, such as vegetation or urban area (impervious surface) tint from 1:100,000-scale Medium Resolution Land Cover dataset? (see left image in figure 8 above; middle and right images are provided for information only)

Very acceptable

Acceptable

Not very acceptable

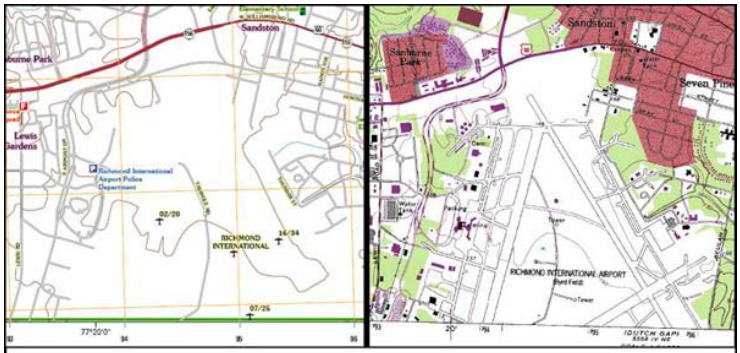
Not acceptable at all

Why or why not?

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 9



Example on left shows airports as point locations. Image on right shows airport detail.

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

2. Is it acceptable to publish some digital topo quads that are more feature rich than others? For example, sometimes data may be available in one area but features such as pipelines, power lines, airport runways, springs, and wells are missing in other areas. (The image on the left of Figure 9 illustrates this missing data feature).

Very acceptable

Acceptable

Not very acceptable

Not acceptable at all

Why or why not?

Add Question Here

Add Page Here

Page #23 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

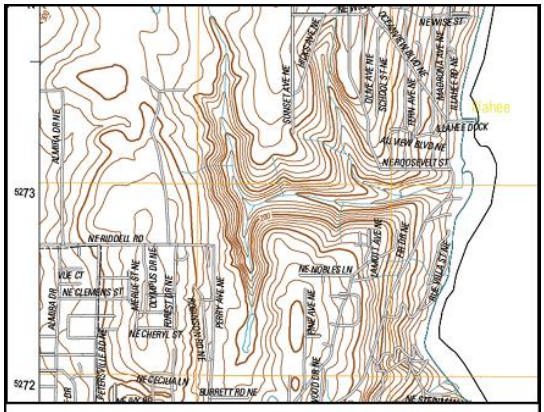
23. Topographic Feature Conflicts (cont.)

Note: There are four images on this page--please wait for them to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

Figure 10a



Example of contours with no shaded relief (traditional topo map)

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

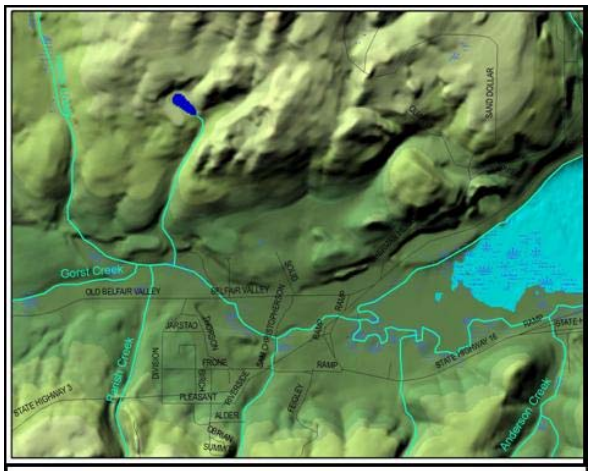
Figure 10b

Example of draped line features over 3-D relief model

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 10c

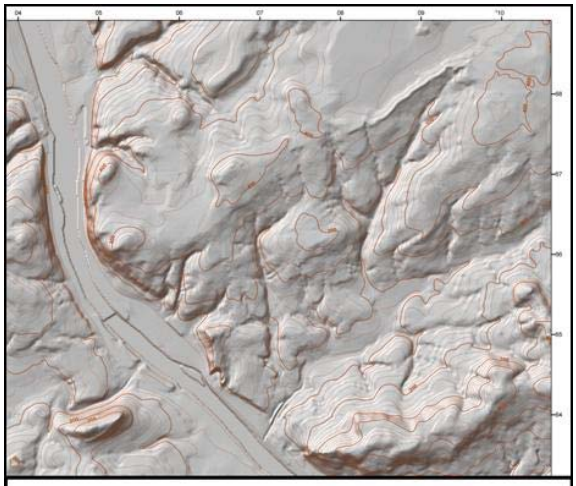


Shaded relief with elevation bands (no contours)

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

Figure 10d



Combination of shaded relief with contours

Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete

1. Which of the four options in Figure 10 above do you prefer to display topography and relief features on the digital topo quad? Identify your 1st and 2nd choices.

	1st choice	2nd choice
Figure 10a--Contours on digital topo		
Figure 10b--Draping the imagery and line features over a 3-D relief model		
Figure 10c--Shaded relief with elevation color bands		
Figure 10d--Combination of shaded relief and contours		
Combination of drape with contours (no figure available-but like figure B with contours added)		

Add Question Here

Add Page Here

Page #24 Edit Page | Move | Copy | Delete | Add Logic — Show this Page Only

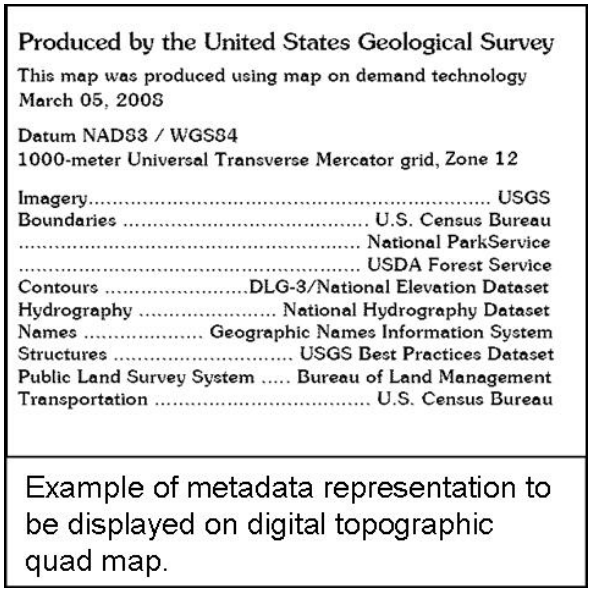
24. Topographic Feature Conflicts (cont.)

Note: There is one image on this page--please wait for it to appear before responding.

Add Question Here

Edit Question | Move | Copy | Delete

Figure 11



Add Question Here | Split Page Here

Edit Question | Move | Copy | Delete | Add Logic

1. Would you find the level of metadata detail in figure 11 above to be sufficient for your purposes of the printed map product (as shown below) if you also could get access to more metadata on the The National Map website?

- Too much detail
- Just right
- Not enough detail

Why?

Add Question Here

Add Page Here

Page #25 Edit Page | Move | Copy | Delete | Add Logic — Show this Page Only

25. Opinions?

Add Question Here

Edit Question | Move | Copy | Delete | Edit Logic (2)

*** 1. May we contact you for additional information?**

- Yes
- No

Add Question Here

Add Page Here

Page #26 Edit Page | Move | Copy | Delete | Add Logic — Show this Page Only

26. Contact Information

Add Question Here

Edit Question | Move | Copy | Delete

1. Please provide:

Name	
Organization	
Phone	
Email	

Add Question Here

Add Page Here

Page #27 Edit Page | Move | Copy | Delete | Add Logic | Show this Page Only

27. THANK YOU

If you know of other users of The National Map who have not completed this survey, please feel free to pass along the link you used to access this site.

If you have provided your email address, we will send you a summary of responses when it becomes available. If you wish to discuss these issues in further detail, or provide specific illustrations, please email comments to ???? or call ?????????.

Thank you for your time and interest.

Add Question Here

Add Page Here

Appendix C. Environmental Systems Research Institute (ESRI) Survey Questions

[ESRI developed a short version of the USGS structured interview guide (appendix A) and released a 10-question survey (reproduced in this appendix C) to all ESRI customers residing in the United States and attending the 2008 ESRI International User Conference]

The National Map is currently undergoing a significant revision by the U.S. Geological Survey. Your response to the following questions will help the USGS evaluate the requirements for nationally consistent data which are needed to address your mission critical requirements.

1. What best describes your organization?

- ❍ Local government
- ❍ State government
- ❍ Federal government
- ❍ Private-sector land or resource management
- ❍ Private-sector technology or GIS service provider
- ❍ Private-sector other
- ❍ Not-for-profit organization
- ❍ Academic
- ❍ Other

2. What are the five most important areas in which your organization uses GIS? (Check up to five)

- ❍ Agricultural practices
- ❍ Climate change
- ❍ Defense and homeland security
- ❍ Economic development
- ❍ Ecosystems, biodiversity and resource conservation
- ❍ Energy and mineral resources
- ❍ Geography awareness (education)
- ❍ Human health and the environment
- ❍ Human services
- ❍ Infrastructure development and maintenance
- ❍ Natural hazards assessment and emergency response
- ❍ Natural resource and land management
- ❍ Recreation
- ❍ Regulation of pollutants and other contaminants
- ❍ Water quantity and quality
- ❍ Community development and growth management
- ❍ Law enforcement
- ❍ Other (please specify)

3. How often does your organization access geospatial data from outside of your jurisdiction (e.g. across state lines or international boundaries for watershed assessment, regional development)?

- ❍ Daily
- ❍ Weekly
- ❍ Monthly
- ❍ Rarely
- ❍ Never

4. *The National Map* provides access to a base of nationally consistent geospatial datasets. How would you rate the importance to your organization of these currently available datasets in the *The National Map*? Responses are: 5 - very important, 4 - important, 3 - somewhat important, 2 - less than important, 1 - not important.

___ Boundaries – Civil boundaries to include city, county, state, international
___ Boundaries – Federal and Native American lands
___ Boundaries - Public Land Survey System (section, township, range)
___ Ecological Systems (e.g. oak woodland, swale grassland, shrub steppe)
___ Elevation
___ Hydrography – Surface water
___ Hydrography - Springs and wells
___ Land cover (i.e. vegetation, built, wetlands, grasslands)
___ Orthoimagery
___ Parcels – privately owned
___ Physiographic feature names (mountain, valley, canyon, plain, etc.)
___ Structures – buildings in rural areas
___ Structures – selected public buildings such as schools, hospitals, courthouse
___ Transportation – public streets and roads
___ Transportation – airports
___ Transportation – railroads
___ Transportation – trails
___ Utilities (local water, sewer, electrical, natural gas)
___ Utilities (regional and interstate pipelines and powerlines)

5. A limited set of additional data layers may be considered for inclusion in the next generation of *The National Map.* How would you rate the importance of including these potential new datasets? Responses are: 5 - very important, 4 - important, 3 - somewhat important, 2 - less than important, 1 - not important.

___ Bathymetry
___ Biodiversity (species and ecosystems at risk)
___ Ecological Systems (e.g. oak woodland, swale grassland, shrub steppe)
___ Flood zones
___ Geology
___ Ground water
___ Land use
___ Light Detection And Ranging (LiDAR data for detailed topography and other mapping activities)
___ Parcels – privately owned
___ Parcels – publicly owned
___ Soils
___ Transportation – other routes such as forest roads generally closed to the public
___ Utilities (local water, sewer, electrical, natural gas)
___ Vertical and horizontal control
___ Zoning

6. Complete the following: My organization would participate in a program to update *The National Map* if the U.S. Geological Survey (check one):

___ provided an online "wiki" type application to edit geospatial content in *The National Map*.
___ accepted digital files of new geospatial content.

___ provided the ability to digitally mark published topographic maps with edits to be sent to data stewards in states or the Federal government.
___ Don't know/Would not participate

7. How often do you use the following USGS services? Responses are: 1 - Daily, 2 - Weekly, 3 - Monthly, 4 - Rarely, 5 - Never.
___ *The National Map* viewer
___ *The National Map* seamless server
___ The National Hydrography Dataset (NHD) viewer
___ The USGS store
___ National Atlas
___ Geographic Names Information System (GNIS)
___ Geospatial One Stop
___ Maps on Demand

8. How important are digital or printed USGS topographic quadrangle maps to your work?
___ Very Important - I couldn't do my work without topographic map products.
___ Quite Important - I need them, but can make do without it.
___ Somewhat Important – They are not needed but are helpful.
___ Less than Important - I use them from time to time.
___ Not Important - I don't use them (nor does my organization).

9. The USGS integrates data from many partner organizations. Most data is of high quality; some is slightly lower quality. What best describes your attitude to a proposal to publish maps with a data integration rating from 1 to 3 as a means of dramatically increasing the U.S. topographic map production rate?
____ I can accept lower levels of data integration and feature richness as a reasonable tradeoff to increase map production rates.
____ I can accept lower levels of data integration and feature richness in most places but in some places, I require that published maps meet the highest standard of data integration.
____ I can not support anything less than the highest standard of data integration and I understand that this would have a significant impact on the production rate and availability of published maps.

10. What one feature, data layer, or function would you most like included in the next generation of *The National Map*? Why?