Adobe Acrobat Pro Procedures for Producing Section 508 Accessible PDF Documents for the NRTR, NRR, and NRDS Report Series: and the NPS Inventory & Monitoring Program

(4/11/2014)

Introduction

The examples and procedures outlined in this document work best using Adobe Acrobat Pro 10 or later. Earlier versions of these software programs are not recommended.

This document provides guidance and procedures for generating accessible Adobe Acrobat (PDF) documents per Section 508 of the Rehabilitation Act (Section 508). It was originally written as an informal training manual and reference for publication specialists working in the national NPS Inventory & Monitoring Division office. Other NPS and Inventory & Monitoring Program offices may also use these procedures to generate accessible PDF documents.

The procedures outlined in this document show the user how to utilize existing tools that are built into Adobe Acrobat Pro to automatically add, check, and update website markup tags in PDF documents. These PDF markup tags allow screen readers to correctly read the document aloud to the visually and cognitively impaired (per Section 508 policy). PDF markup tags do not change how pages print or look on the computer screen for sighted users.

This document is a work in progress. Please contact Fagan Johnson if you have any questions or see something that needs to be changed.

Outline of the Suggested Steps

1) Generate your final PDF document using the procedures outlined in one of the following:
   a) NPS Inventory & Monitoring Program briefs and small documents. Available for download at: http://science.nature.nps.gov/im/reports/index.cfm?tab=0&BriefsTemplates=open#BriefsTemplates
   b) NPS-wide Natural Resource Technical Report (NRTR), Natural Resource Report (NRR) and Natural Resource Data Series (NRDS) report series. Available for download at: http://www.nature.nps.gov/publications/nrpm/nrrnrtr.cfm
   c) I&M guidance document: MS Word Procedures for Producing Section 508 Accessible PDF Documents.
   d) I&M guidance document: Adobe InDesign Procedures for Producing Section 508 Accessible PDF Documents.
2) Make sure that the PDF document language is set to: *English*.
3) Use the `Tools / Accessibility / TouchUp Reading order` tools to check and update accessibility tags on each individual page.
4) The document is ready when the only potential error message returned by the *`Tools / Accessibility / Full check`* diagnostic tool is: *`Tab order may be inconsistent with the structure order`*.

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Adobe Acrobat Pro Procedures

The procedures below were generated using Adobe Acrobat Pro 10 on a 64-bit Windows 7 computer. The procedures are very similar for Adobe Acrobat Pro 11 on 64-bit Windows 7 and Windows 8, and on Mac/Apple computers. Earlier versions of these software programs are not recommended.

The basic Steps:

1) Generate your final PDF document using the procedures outlined in one of the following:

   a) NPS Inventory & Monitoring Program briefs and small documents. Available for download at: http://science.nature.nps.gov/im/reports/index.cfm?tab=0&BriefsTemplates=open#BriefsTemplates

   b) NPS-wide Natural Resource Technical Report (NRTR), Natural Resource Report (NRR) and Natural Resource Data Series (NRDS) report series. Available for download at: http://www.nature.nps.gov/publications/nrpm/nrrnrtr.cfm

   c) I&M guidance document: MS Word Procedures for Producing Section 508 Accessible PDF Documents.

   d) I&M guidance document: Adobe InDesign Procedures for Producing Section 508 Accessible PDF Documents.

2) Make sure that the PDF document language is set to: *English* (see subchapter: *Adobe Acrobat Pro Procedures / Step 2. Make Sure that the PDF Document Language Is Set to: English*).

3) Check, update, and order the accessibility tags on each individual page (see subchapter: *Adobe Acrobat Pro Procedures / Step 3. Check, Update, and Order the Accessibility Tags on Each Individual Page*).

4) Run full accessibility checks, and fix remaining accessibility issues (see subchapter: *Adobe Acrobat Pro Procedures / Step 4. Run Full Accessibility Checks and Fix Remaining Accessibility Issues*).

   Note: The PDF document is ready when the only potential error message returned by the `Tools / Accessibility / Full check` diagnostic tool is: `Tab order may be inconsistent with the structure order`.

The MS Word and Adobe InDesign format and layout techniques found in the templates mentioned above will automatically add HTML tags to the final document for you, and make checking and updating the tags in the final PDF much faster and easier.

Of special concern are graphic elements and tables. All graphic elements must have alternate text, and all tables must be formatted in such a way to be read aloud correctly by screen readers for the visually-impaired (Section 508).

This document is a work in progress. Please contact Fagan Johnson if you have any questions or see something that needs to be changed.

Step 1. Generate Your Final PDF Document Using the Procedures Outlined in One of the Following:

A) Generate your final PDF document using the procedures outlined in one of the following:

B) NPS Inventory & Monitoring Program briefs and small documents. Available for download at: http://science.nature.nps.gov/im/reports/index.cfm?tab=0&BriefsTemplates=open#BriefsTemplates

C) NPS-wide Natural Resource Technical Report (NRTR), Natural Resource Report (NRR) and Natural Resource Data Series (NRDS) report series. Available for download at: http://www.nature.nps.gov/publications/nrpm/nrrnrtr.cfm

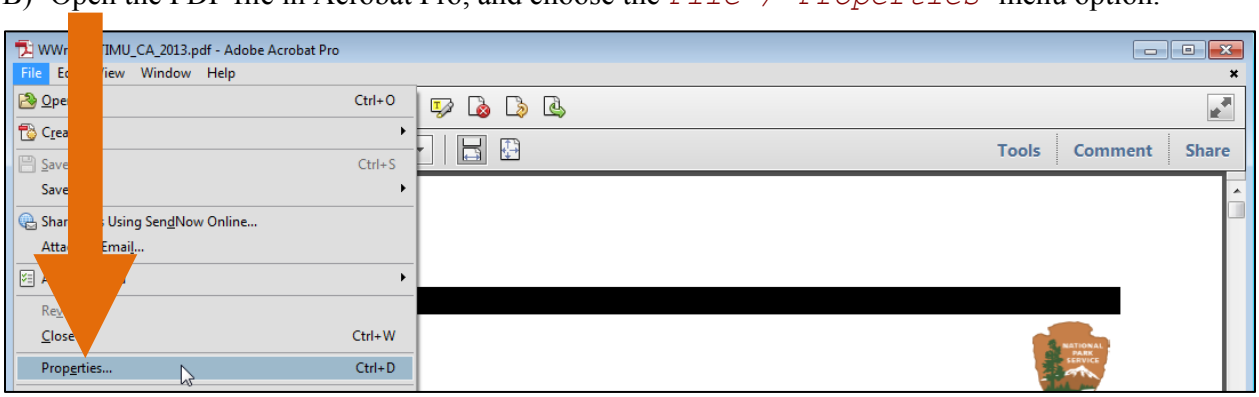
D) I&M guidance document: MS Word Procedures for Producing Section 508 Accessible PDF Documents.

E) I&M guidance document: Adobe InDesign Procedures for Producing Section 508 Accessible PDF Documents.

Step 2. Make Sure that the PDF Document Language Is Set to: *English*

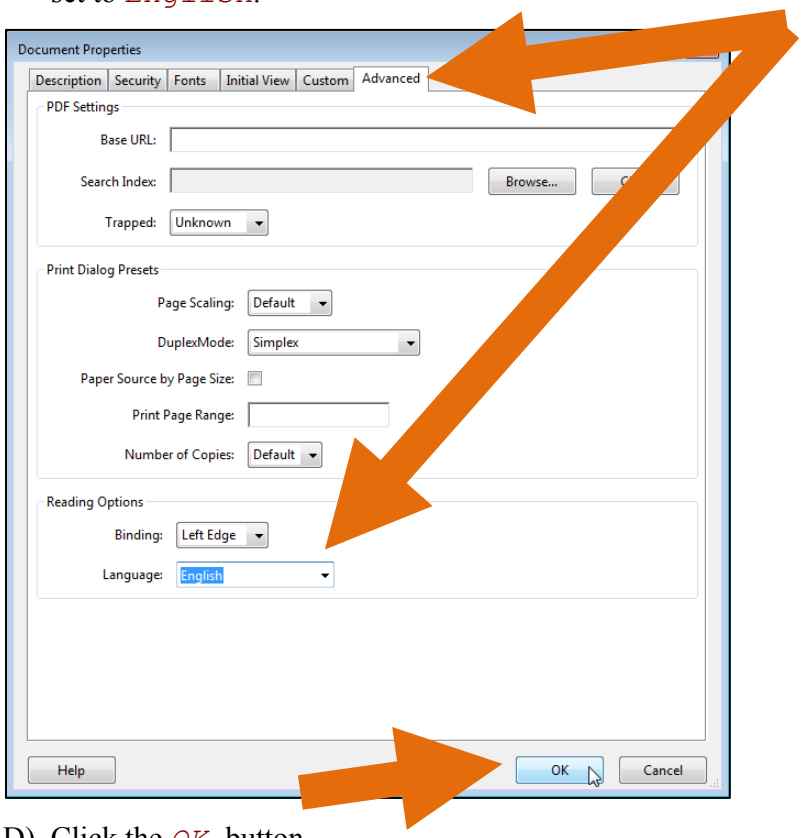
A) Save two copies of the PDF file. One will be for editing and the other as a backup copy in case you need to replace individual pages in the version that you are editing, or start over.

B) Open the PDF file in Acrobat Pro, and choose the `File / Properties` menu option.



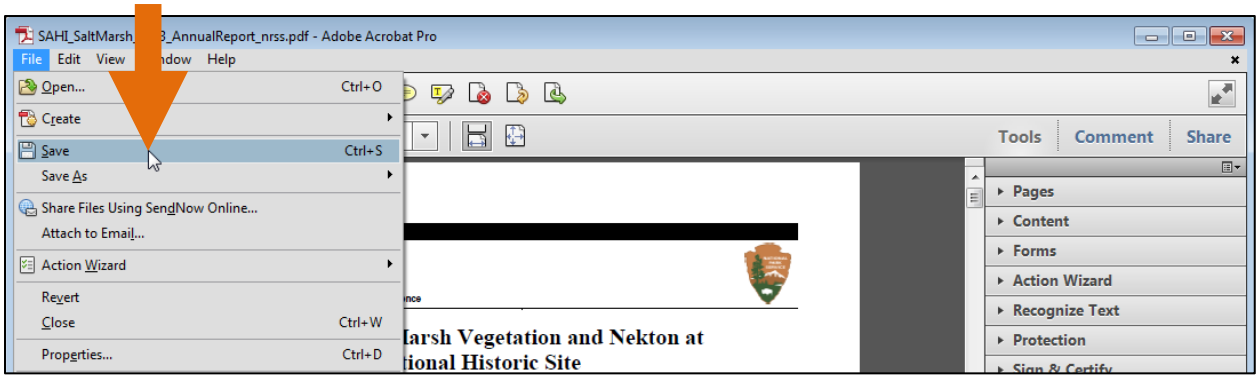
Continued on Next Page

C) On the next screen, click on the *Advanced* tab, and make sure that the *Language* option is set to *English*.



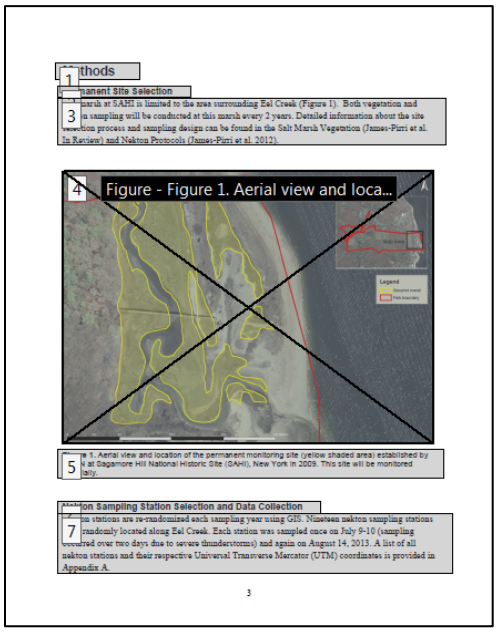
D) Click the *OK* button.

E) Before you go any further, save the file (*File / Save* menu option)



Step 3. Check, Update, and Order the Accessibility Tags on Each Individual Page

For Pages that Already have Tags When Viewed in the `Touchup Reading Order` Tools (Authors Used Template Techniques):



A) Make sure that all page elements are tagged appropriately. All:

   a) Regular text is tagged as `Text`. See the *Text Tag Options* section of this document for more details.

   b) Images, photos, figures, etc. need to be tagged as `Figure`, elements, and have alternate text. See the *Figure Tag Options* section of this document for more details.

   c) Chapter headings need to be tagged as appropriate (`Heading 1`, `Heading 2`, and `Heading 3`). See the *Heading Tag Options* section of this document for more details.

   d) Tables need to be tagged to be read by screen readers for the visually-impaired (`Table`, `TH`, `TD`). See the *Table Tag Options* section of this document for more details.

   e) Page elements that have no interpretive value for the visually-impaired need to be tagged as `Background` elements. See the *Background Tag Options* section of this document for more details.

B) Change the *Order* number of tagged elements to the desired reading order on the page (1 is read first, 2 is read second, etc.). See the Changing the *Changing the Page Order of Tagged Elements* section of this document for more details.

C) Additional Guidance:

   a) See the Cover Pages with Page-top Banners section for guidance that makes tagging these complex pages simple and easy.

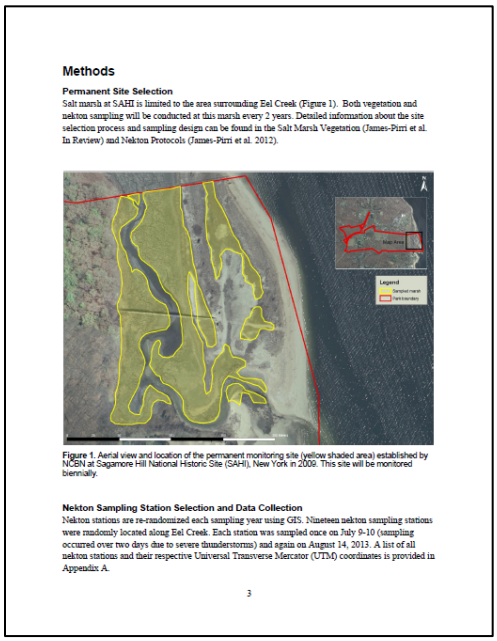
   b) If you are having problems tagging a page, see the Solutions to Common Tagging Problems section of this document.

   Note: Save often (every few pages)!

If the author used the basic guidelines outlined in our templates, then you will give most pages a quick check, and spending most of your time on the pages with figures and tables (adjusting reading order, checking and adding alternate text to graphic elements, and checking and fixing table tags).

After the first few documents, most people can process a typical 60-70 page NRTR, NRR, or NRDS report in one to two hours (depending on the number of figures and tables, layout complexity, etc.).

For Pages that Do Not Have Any Tags when Viewed in the `TouchUp Reading Order` Tools (Authors Did Not Use Template Techniques):



Methods

Permanent Site Selection

Salt marsh at SAHI is limited to the area surrounding Eel Creek (Figure 1). Both vegetation and nekton sampling will be conducted at this marsh every 2 years. Detailed information about the site selection process and sampling design can be found in the Salt Marsh Vegetation (James-Pirri et al. In Review) and Nekton Protocols (James-Pirri et al. 2012).

Figure 1. Aerial view and location of the permanent monitoring site (yellow shaded area) established by NCBN at Sagamore Hill National Historic Site (SAHI), New York in 2009. This site will be monitored biennially.

Nekton Sampling Station Selection and Data Collection

Nekton stations are re-randomized each sampling year using GIS. Nineteen nekton sampling stations were randomly located along Eel Creek. Each station was sampled once on July 9-10 (sampling occurred over two days due to severe thunderstorms) and again on August 14, 2013. A list of all nekton stations and their respective Universal Transverse Mercator (UTM) coordinates is provided in Appendix A.

3

A) Left-click with your mouse, and draw a polygon around all elements on the page to select/highlight them, and click the `Background` button.

   Note: This step helps to ensure that any invisible page elements that were not manually tagged by you will be ignored by screen readers for the visually-impaired.

B) Tag each page element on the page, making sure that all page elements are tagged appropriately. All:

   a) Regular text is tagged as `Text`. See the *Text Tag Options* section of this document for more details.

   b) Images, photos, figures, etc. need to be tagged as `Figure`, elements, and have alternate text. See the *Figure Tag Options* section of this document for more details.

   c) Chapter headings need to be tagged as appropriate (`Heading 1`, `Heading 2`, and `Heading 3`). See the *Heading Tag Options* section of this document for more details.

   d) Tables need to be tagged to be read by screen readers for the visually-impaired (`Table`, `TH`, `TD`). See the *Table Tag Options* section of this document for more details.

   e) Page elements that have no interpretive value for the visually-impaired need to be tagged as `Background` elements. See the *Background Tag Options* section of this document for more details.

C) Change the *Order* number of tagged elements to the desired reading order on the page (1 is read fist, 2 is read second, etc.). See the *Changing the Page Order of Tagged Elements* section of this document for more details.

D) Additional Guidance:

   a) See the Cover Pages with Page-top Banners section for guidance that makes tagging these complex pages simple and easy.

   b) If you are having problems tagging a page, see the Solutions to Common Tagging Problems section of this document.

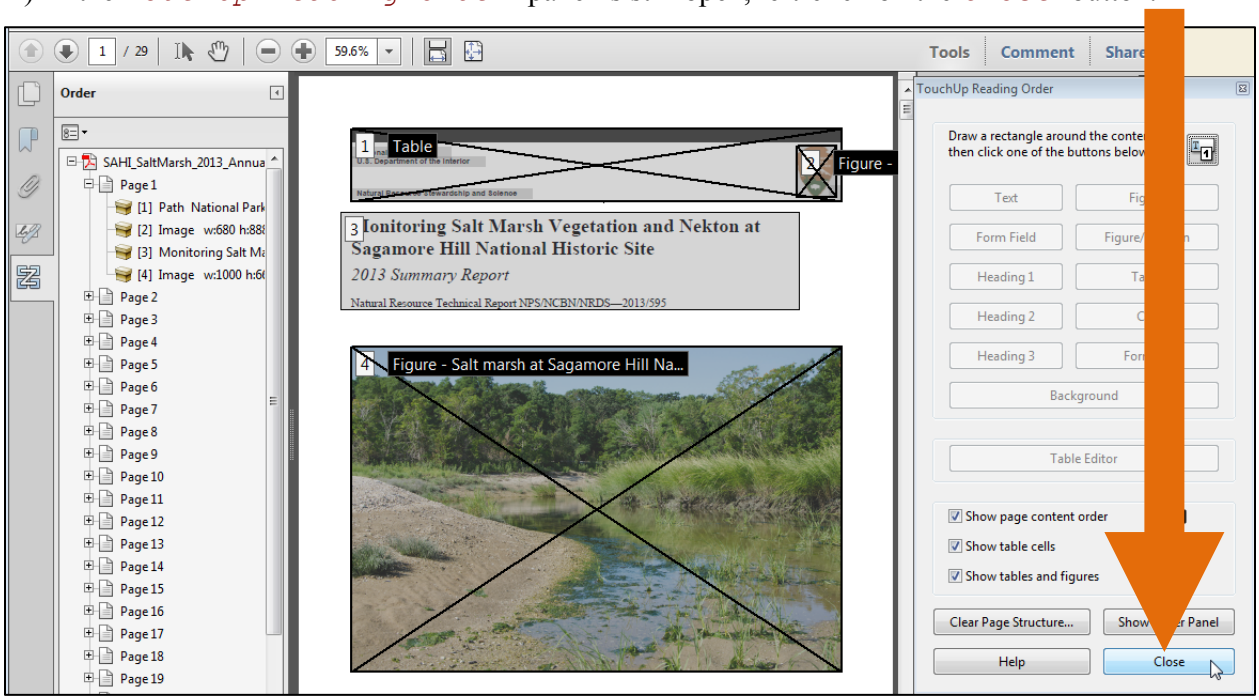
   Note: Save often (every few pages)!

If the author did not use the basic guidelines outlined in our templates, you will have to tag each text line, heading, figure (and adding alternate text), table, etc. on each and every single page.

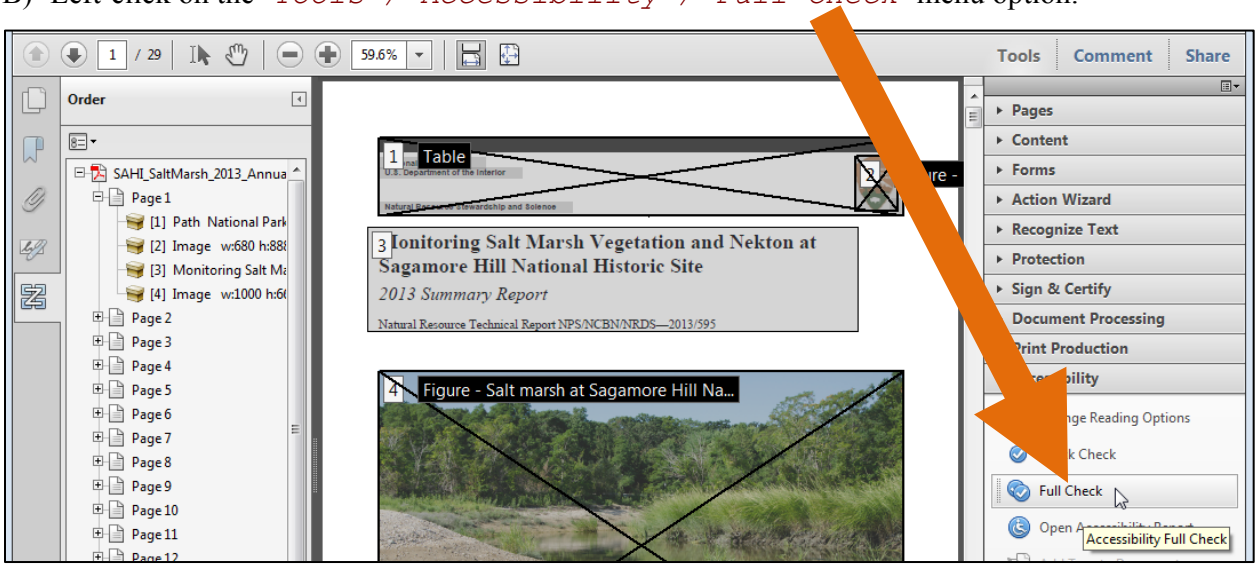
After the first handful of documents, most people can process such a 60-70 NRTR, NRR, or NRDS report in 2.5 – 4.0 hours (depending on the number of figures and tables, layout complexity, etc.).

Step 4. Run Full Accessibility Checks and Fix Remaining Accessibility Issues

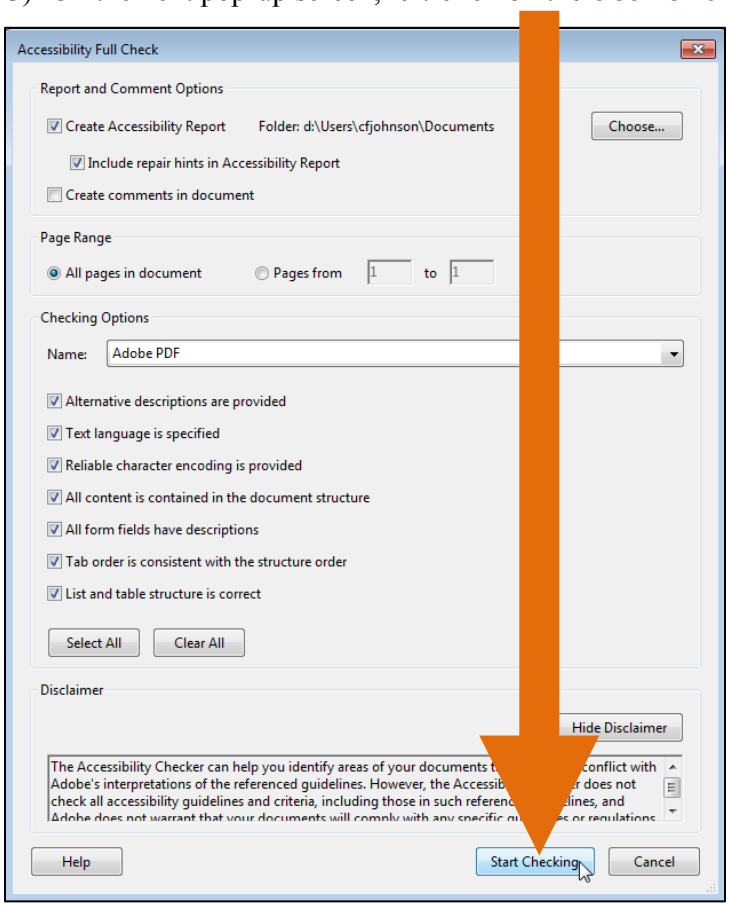
A) If the `TouchUp Reading Order` panel is still open, left-click on the `Close` button.



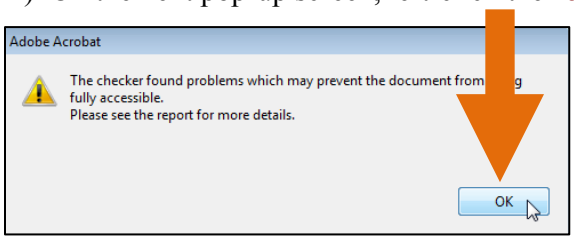
B) Left-click on the `Tools / Accessibility / Full Check` menu option.



C) On the next pop-up screen, left-click on the *Start Checking* button.

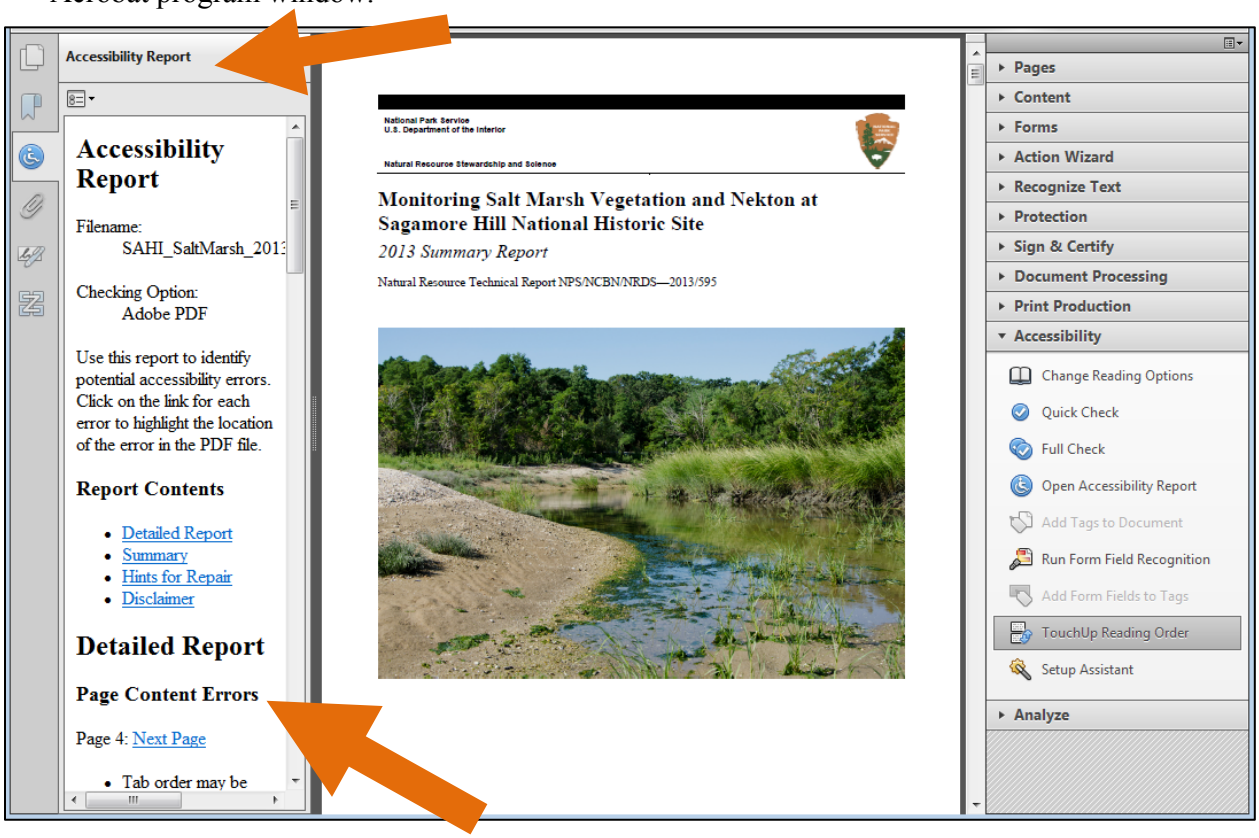


D) On the next pop-up screen, left-click the *OK* button.



Note: Using the default settings, this tool always finds potential errors with any and all documents.

E) An *Accessibility Report* panel will appear along the left-hand portion of the Adobe Acrobat program window.



F) Scroll down to see the *Detailed Report / Page Content Errors* section.

G) We will be fixing any and all accessibility errors listed in the *Page Content Errors* section, except for those marked as:

Tab order may be inconsistent with the structure order.

H) For all other accessibility errors listed:

a) Go to the page number given by the *Page Content Errors* section, and fix and/or re-do the accessibility tags on that page.

b) Use instructions provided in this document to fix those tag issues.

I) Repeat steps B through H above until the only errors listed in are *Tab order may be inconsistent with the structure order* errors.

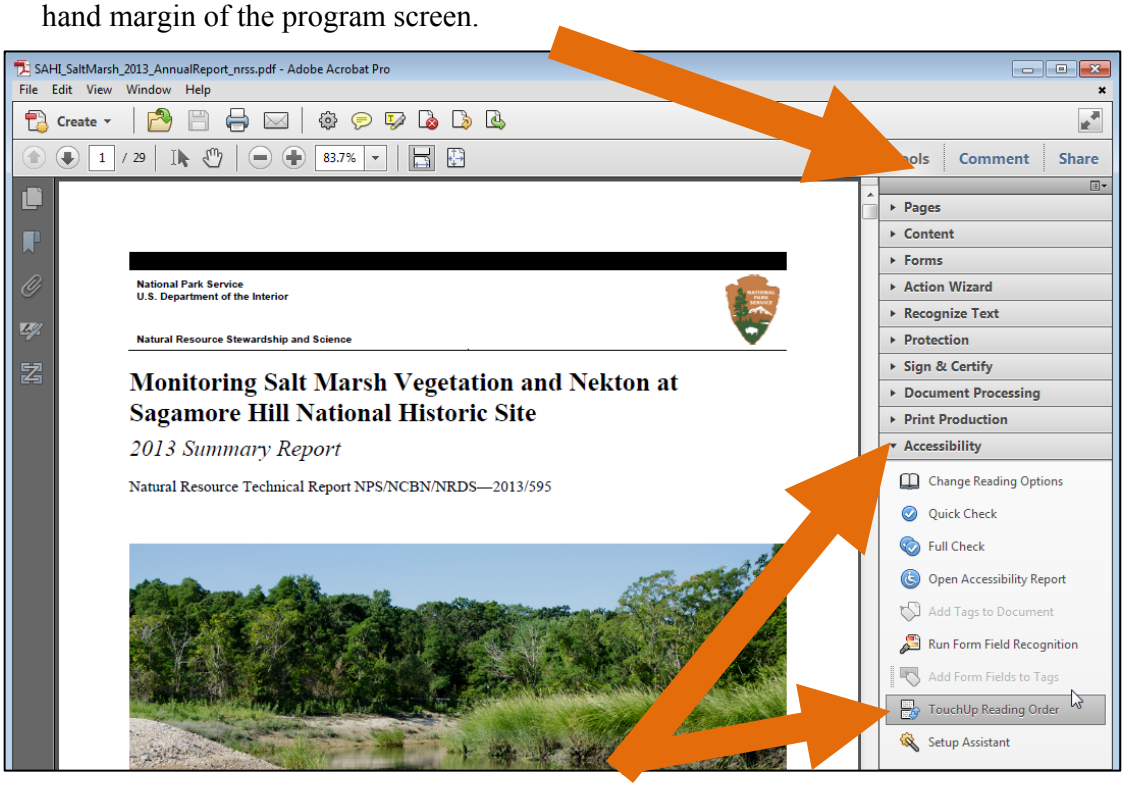
J) Save the final document.

The document now meets current NPS accessibility standards, and is ready for public distribution.

Please contact Fagan Johnson, if you have any questions or see something that needs changing.

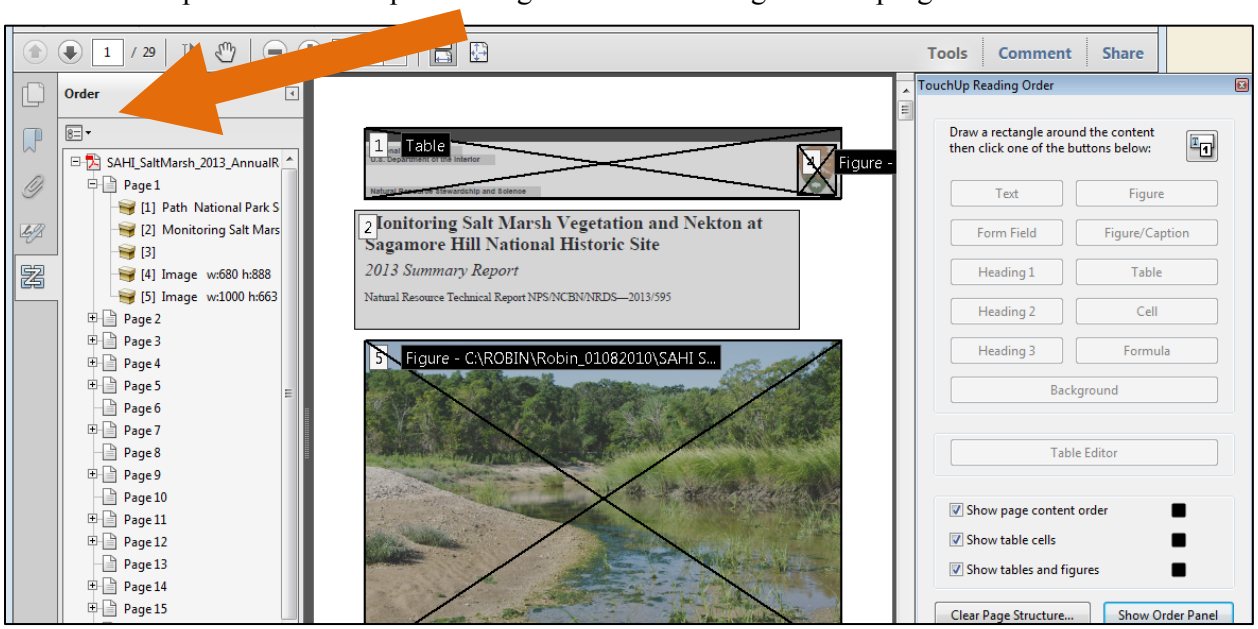
Detailed Instructions for Using the Adobe Acrobat *Accessibility* Tools

A) Click on the *Tools* menu option. This will open the main *Tools* menu panel along the right-hand margin of the program screen.



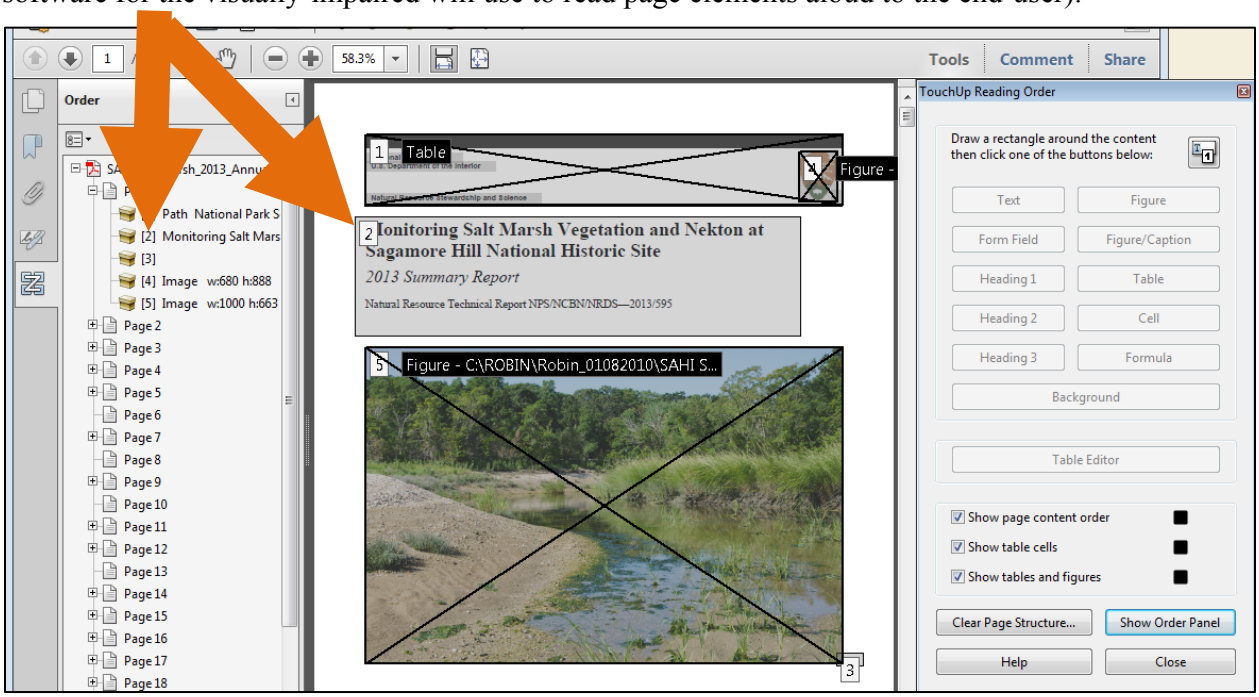
B) Select the *Tools / Accessibility / TouchUp Reading Order* option.

C) On the *TouchUp Reading Order* pop-up screen, click the *Show Order Panel* button. This will open the *Order* panel along the left-hand margin of the program screen.



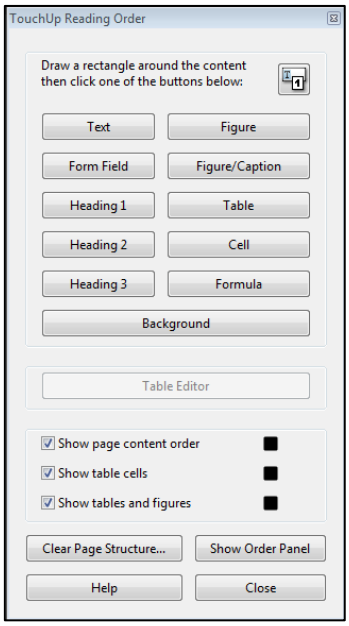
Getting Started with the ***TouchUp Reading Order*** *Tools*

For reports created using accessibility enhancements similar to those found in our document templates, each page element will be displayed with a black border around with a white square in the upper left-hand corner that displays the element *Order* number (corresponds to the reading order that software for the visually-impaired will use to read page elements aloud to the end-user).



See the Changing the Page Order for Tagged Elements section of this document for more details about ordering page elements.

At this point, it is okay if no page elements were marked upon export from MS Word or Adobe InDesign. It will just take longer to make the final report accessible.



TouchUp Reading Order Pop-up Screen Tagging Options (from: http://help.adobe.com/en_US/acrobat/X/pro/using/WS58a04a822e3e50102bd615109794195ff-7d05.w.html)

Text – Tags the selection as regular paragraph text. See the *Text Tag Options* section of this document for more details.

> Default tag for all text that is not part of a figure, table, page header, page footer, or heading.

Figure – Tags the selection as a figure. Text contained within a figure tag is defined as part of the image and is not read by screen readers.

Basic figure/image tag (default image tag exported from MS Word). See the *Figure Tag Options* section of this document for more details.

Form Field – Tags the selection as a form field. See the Adobe site above for more details about this rarely-used element.

Figure/Caption – Tags a selected figure and caption as a single tag. Any text contained in the tag is defined as a caption. Useful for tagging photos and captions and preventing caption text from being incorrectly added to adjacent text blocks. Figures may require alternate text.

> Can be used whenever the figures were not tagged in MS Word or Adobe InDesign. We copy-over the entire figure caption to the alternate text. See the *Figure Tag Options* section of this document for more details.

Heading 1, Heading 2, Heading 3 – Tags the selection as a first, second, or third level heading tag. You can convert heading tags to bookmarks to help users navigate the document.

> Adobe Acrobat only has tags for the first three heading levels. We mark subsequent heading levels as Text. See the *Heading Tag Options* section of this document for more details.

Table – Tags the selection as a table after the selection is analyzed to determine the location of headings, columns, and rows.

> All tabular content with text or numerals must be in table format that is made up of individual table cells, and with the header row(s) marked. Software for the visually-impaired cannot read text that was turned into an image, or correctly read tables were built using traditional typewriter formatting techniques (manual tabs and spaces to separate columns).
>
> See the *Table Tag Options* section of this document for more details.

Cell – Tags the selection as a table or header cell. Use this option to merge cells that are incorrectly split. See the Table Options section of this document for more details.

> We suggest that you avoid using the *Cell* tag option, because it is so difficult to use. See the Adobe site above for more details about this rarely-used element.

Formula – Tags the selection as a formula.

> We suggest that you avoid using the *Formula* tag option, because it is so difficult to use. See the Adobe site above for more details about this rarely-used element.

Background – Tags the selection as a background element, or artifact, removing the item from the tag tree so that it doesn't appear in the reflowed document and isn't read by screen readers.

Also used for certain graphic and other page elements that have no interpretive value for the visually-impaired. See the *Background Tag Options* section of this document for more details.

Table Editor – Automatically analyzes the selected table into cells and applies the appropriate tags. The table must be tagged as a table before you can use the Table Editor command on it.

When you click this button, you enter the *Table Editor* mode, where all table cells must be tagged as either *Data Cells (TD)* or *Header Cells (TH)*. See the *Table Tag Options* section of this document for more details.

Show Page Content Order (checkbox) – **S**hows content elements as highlighted areas that contain numbers to indicate the reading order. Specify the highlight color by clicking the color swatch.

Show Table Cells (checkbox) – Highlights the content of individual table cells. Specify the highlight color by clicking the color swatch.

Show Tables And Figures (checkbox) – Outlines each table and figure with a crossed-out box. The box also indicates whether the element includes alternate text. Specify the box color by clicking the color swatch.

Clear Page Structure – Removes the tagging structure from the page. Use this option to start over and create a new structure if the existing structure contains too many problems.

Show Order Panel – Opens the Order tab to allow you to reorder highlighted content.

Edit Alternate Text – Available in the menu that appears when you right-click a highlighted figure. Allows the user to add or edit a text description about the figure properties that is read by a screen reader or other assistive technology.

Edit Form Field Text – Available in the menu that appears when you right-click a form field. Allows the user to add or edit a form field text description that is read by a screen reader or other assistive technology.

Edit Table Summary – Available in the menu that appears when you right-click a highlighted table. Allows the user to add or edit a text description about the table properties that is read by a screen reader or other assistive technology.

Text Tag Options

If you used the guidelines for using font Styles in MS Word, or using tagged Paragraph Styles in Adobe InDesign, most regular text will automatically be added to the final PDF document for you.

PDF `Text` tags are analogous to a paragraph tags (`<p>…</p>`) on a web pages.

While tagging the final PDF document, we also assign the Text tag to any page text that **THAT IS NOT PART OF A**:

- Figure (text should be inside the `Figure` tag for that image, photo, etc.).
- Table (text should be inside a `Table` tag).
- Page Header or Footer (text should be tagged inside a `Background` tag) (includes repeated text at the top or bottom of each page, page numbers, etc.).
- Formula (text should be inside a `Formula` tag).

Figure Tag Options (Figures, Images, Photos, Flow-charts, etc.)

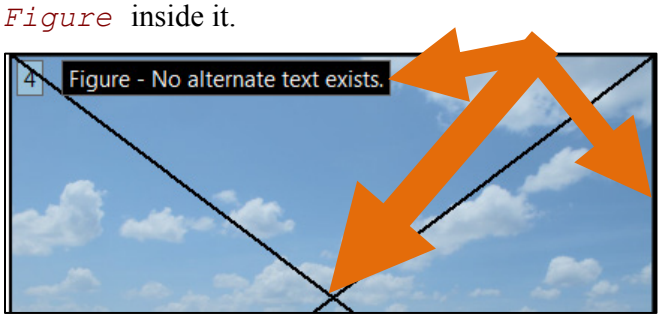
All figures in the final PDF document must have alternate text that can be read by screen readers for the visually-impaired. This includes all figures, photos, illustrations, flow-charts, etc.

If you used the guidelines for images, photos, etc. outlined here and in our document templates, these tags will automatically be added to the final PDF document for you.

PDF `Figure` tags are analogous to an image tag (`<img../>`) on traditional web pages (HTML 4.0 or higher), or to the figure tag (`<figure>…</figure>`) option found in the newer HTML 5.0 web page markup.

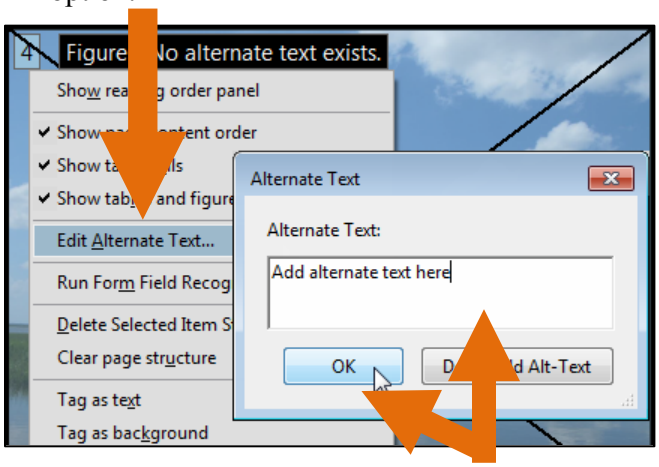
The alternate text should adequately describe the image for the visually-impaired. If available, we suggest that you use any document captions associated with that figure (figure, photo, etc.).

When the `TouchUp Reading Order` tools are open, images that are already tagged as figures will appear with a black border with an "X" through the center, and a black square with the word `Figure` inside it.



If the black-box shows ***Figure – No alternate text exists***:

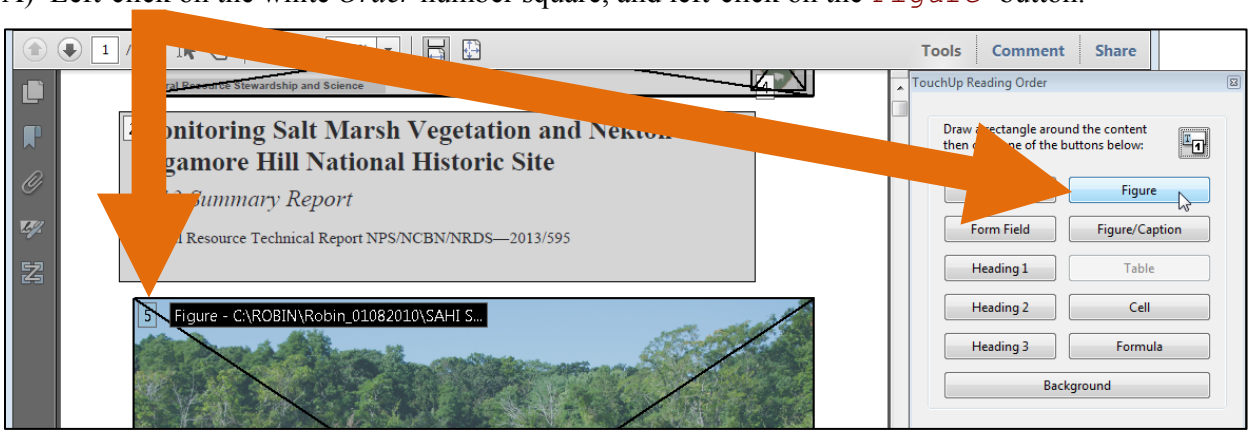
A) Right-click on the white *Order* number square, and choose the `Edit Alternate Text` option.



B) On the `Alternate Text` pop-up box, add the alternate text that you desire, and click the `OK` button (here, we copied-over the caption from the MS Word file).

If the black-box shows `Figure – Path/Filename` (example: *c:\FolderName\FileName*):

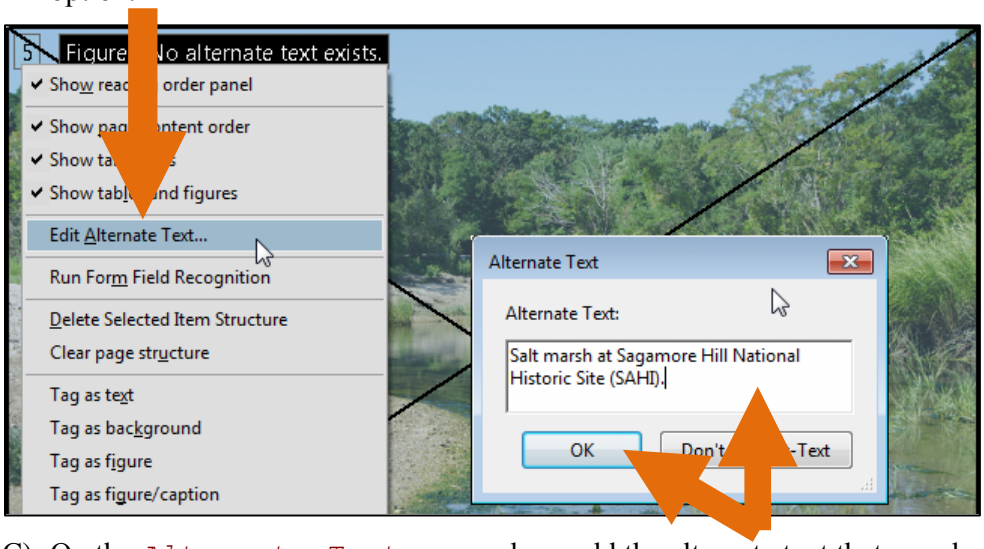
A) Left-click on the white *Order* number square, and left-click on the `Figure` button.



This re-sets the figure to have no alternate text. Why do we do this?

Note: The file path and name value in the alternate text is usually put there by MS Word whenever images are added using the `Insert / Picture` tools, which is not descriptive enough to meet Section 508 standards, and is exported such that it cannot be updated in Adobe Acrobat.

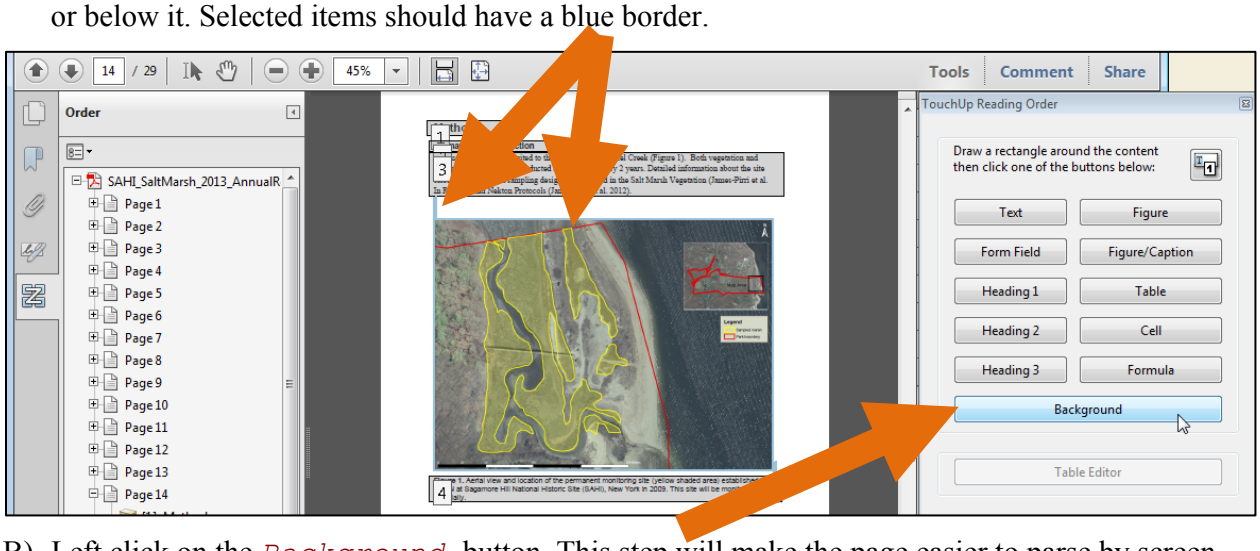
B) Right-click on the white *Order* number square, and choose the `Edit Alternate Text` option.



C) On the `Alternate Text` pop-up box, add the alternate text that you desire, and click the `OK` button (here, we copied-over the caption from the MS Word file).

<u>If the image was not tagged as a figure (no black border around the image with an "X" through the center, and with a black square with the word **`Figure`** inside it.):</u>

A) Left-click with your mouse, and draw a polygon around the figure, and any blank lines just above or below it. Selected items should have a blue border.

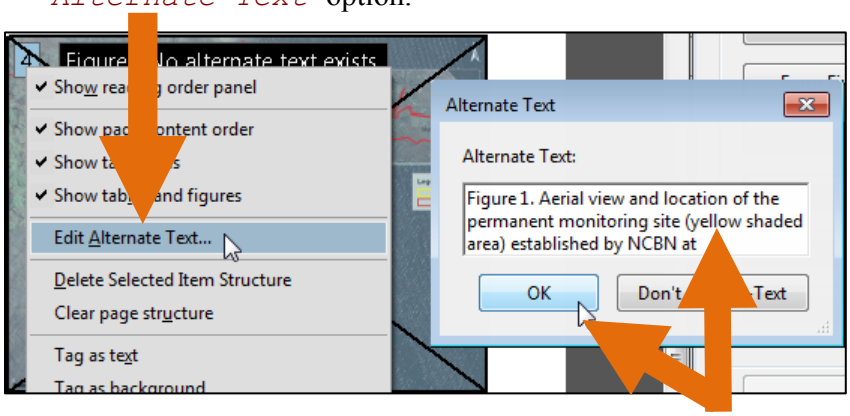


B) Left click on the `Background` button. This step will make the page easier to parse by screen readers for the visually-impaired (makes sure that blank spaces/lines are not read aloud to the end-user as "*Unknown Text*" or "*Possible Export Error*").

C) Left-click with your mouse, and draw a polygon around the figure to select it.

D) Left-click on the *Figure* button.

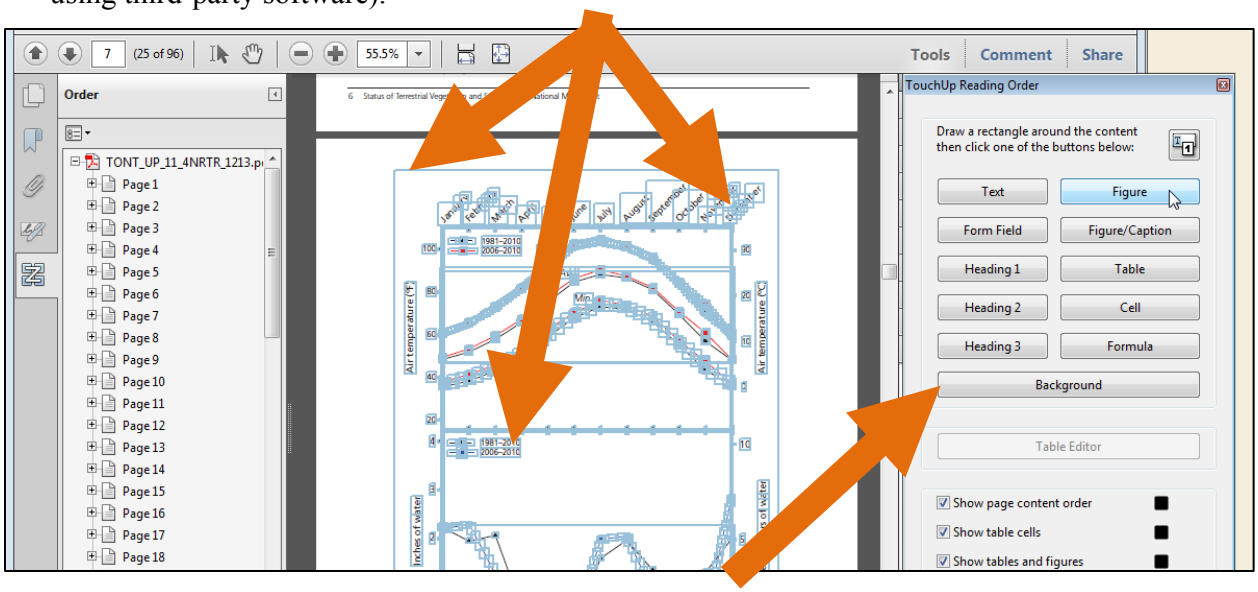
E) Right-click on the white *Order* number square for that image, and choose the *Edit Alternate Text* option.



F) On the *Alternate Text* pop-up box, add the alternate text that you desire, and click the *OK* button (here, we copied-over the caption from the MS Word file).

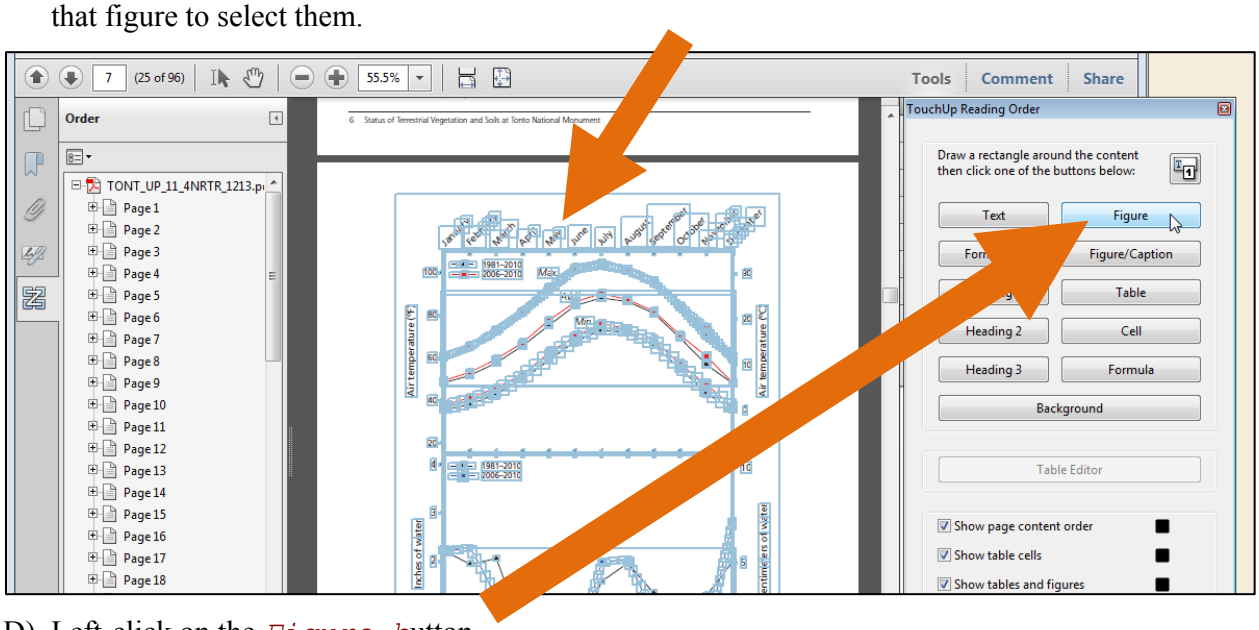
<u>If the image includes embedded text that is not in image format (common with maps, statistical graphics generated with third-party software, flow-charts, and figure labels added by hand by the author inside MS Word or Adobe Acrobat):</u>

A) Left-click with your mouse, and draw a polygon around the figure, and any blank lines just above or below it. Selected items should have a blue border (example is a statistical graphic generated using third-party software).



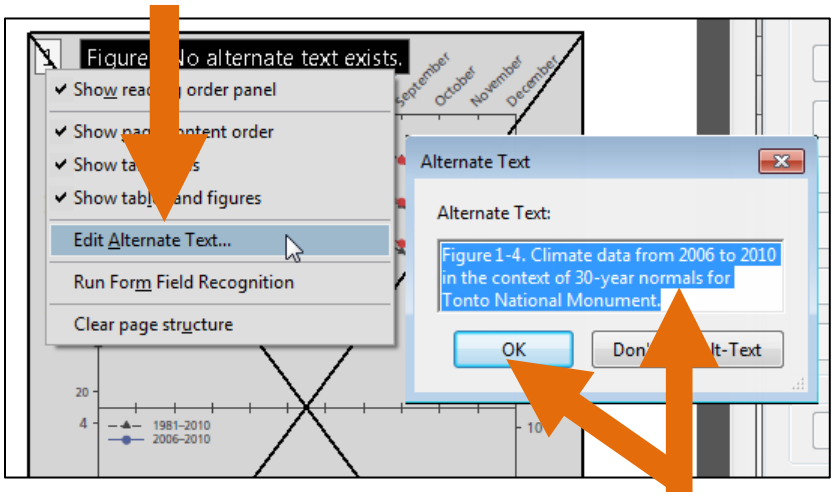
B) Left click on the `Background` button. This step will make the page easier to parse by screen readers for the visually-impaired (makes sure that blank spaces/lines are not read aloud to the end-user as "*Unknown Text*" or "*Possible Export Error*").

C) Left-click with your mouse, and draw a polygon around the figure and any embedded text inside that figure to select them.



D) Left-click on the `Figure` button.

E) Right-click on the white *Order* number square for that image, and choose the `Edit Alternate Text` option.



F) On the `Alternate Text` pop-up box, add the alternate text that you desire, and click the `OK` button (here, we copied-over the caption from the MS Word file).

Heading Tag Options

All first through third order chapter headings should be tagged as such in the final PDF. If you used the guidelines for headings outlined here and in our document templates, these tags will automatically be added to the final PDF document for you.

The `Heading 1` tag is analogous to the first order heading tag (`<h1>…</h1>`) used for web pages.

The `Heading 2` tag is analogous to the first order heading tag (`<h2>…</h2>`) used for web pages.

The `Heading 3` tag is analogous to the first order heading tag (`<h3>…</h3>`) used for web pages.

Adobe Acrobat only has tags for the first three heading levels. We mark subsequent heading levels as regular `Text`.

Table Tag Options

Translating the information found in tables to a form that can be read aloud by screen readers for the visually-impaired is tricky.

All tabular content with text or numerals must be in table format that is made up of individual table cells, and with the header row(s) marked. Software for the visually-impaired cannot read text that was turned into an image, or correctly read tables were built using traditional typewriter formatting techniques (manual tabs and spaces to separate columns).

If you used the guidelines for tables outlined in our document templates, these tags will automatically be added to the final PDF document for you.

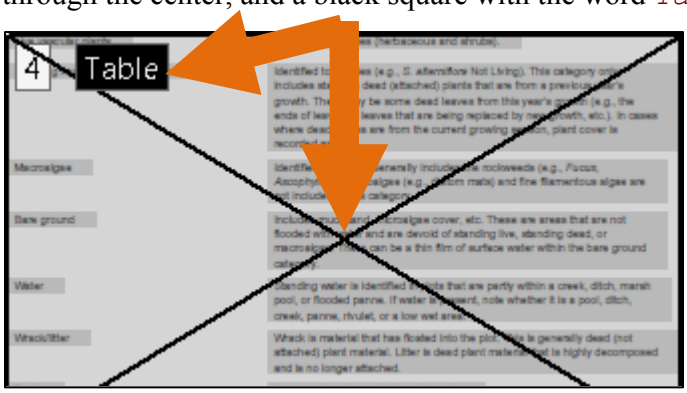
The tags used for tables in PDF format are analogous to the web page markup tags used for tables (`<table>…</table>`), table rows (`<tr>…</tr>`), table header cells (`<th>…</th>`), and table data cells (`<td>…</td>`).

Additionally, the tools for exporting tables from MS Word and Adobe InDesign to PDF format are rather simplistic and unpredictable.

Most Section 508 related problems with tables can be addressed in with minor edits to the original MS Word or Adobe InDesign file. Some tables that do not follow the basic guidelines shown in this document, however, must be completely rebuilt in MS Word or Adobe InDesign to meet Section 508 accessibility standards.

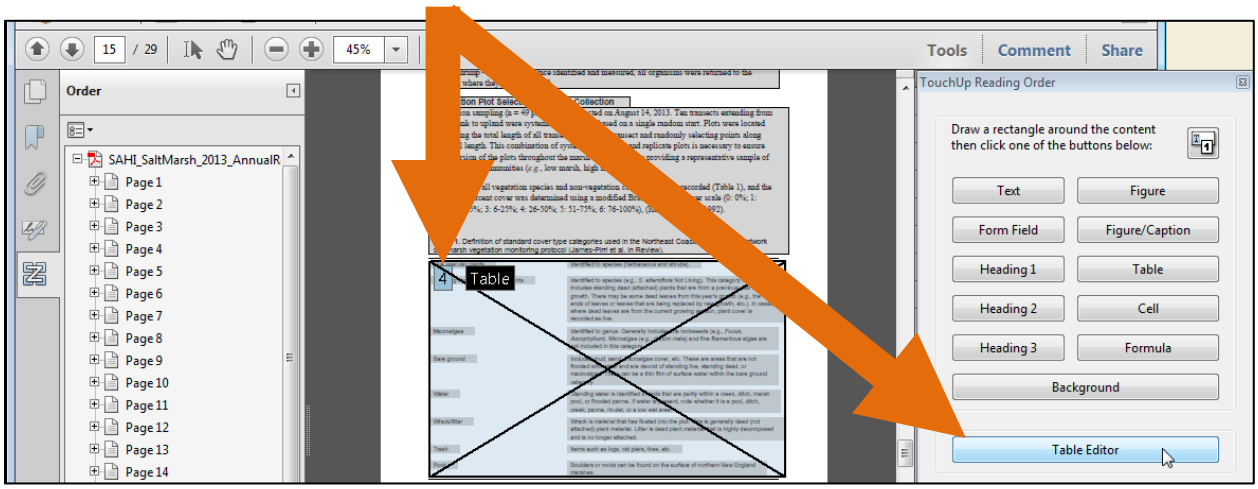
<u>Basic steps for tables that are already tagged (generated using the methods shown in our document templates).</u>

When the `TouchUp Reading Order` tools are open, tabular content that is already tagged as a table, as prescribed in all of our document templates, will appear with a black border with an "X" through the center, and a black square with the word `Table` inside it.

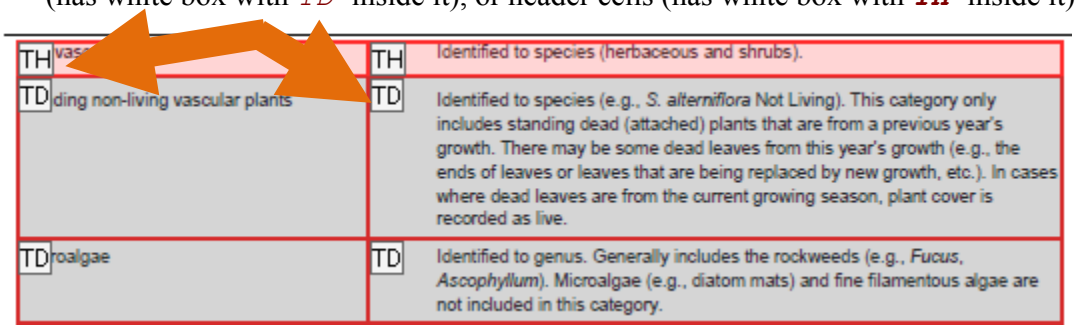


Continued on Next Page

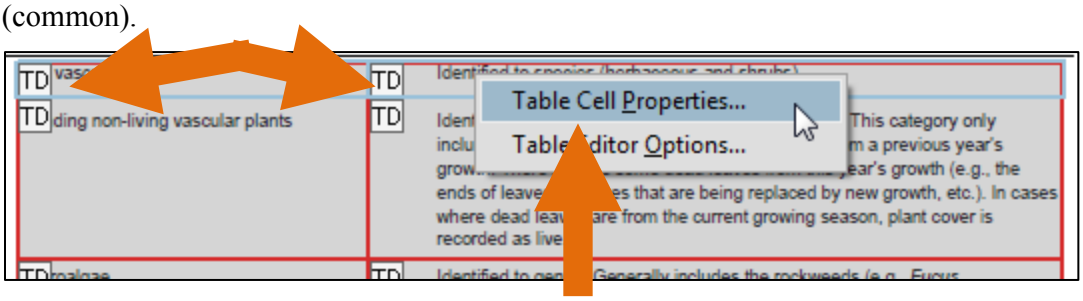
A) Left-click on the white *Order* number square and then click the `Table Editor` button.



B) While in `Table Editor` mode, make sure that all table cells are marked as either data cells (has white box with `TD` inside it), or header cells (has white box with ***TH*** inside it).

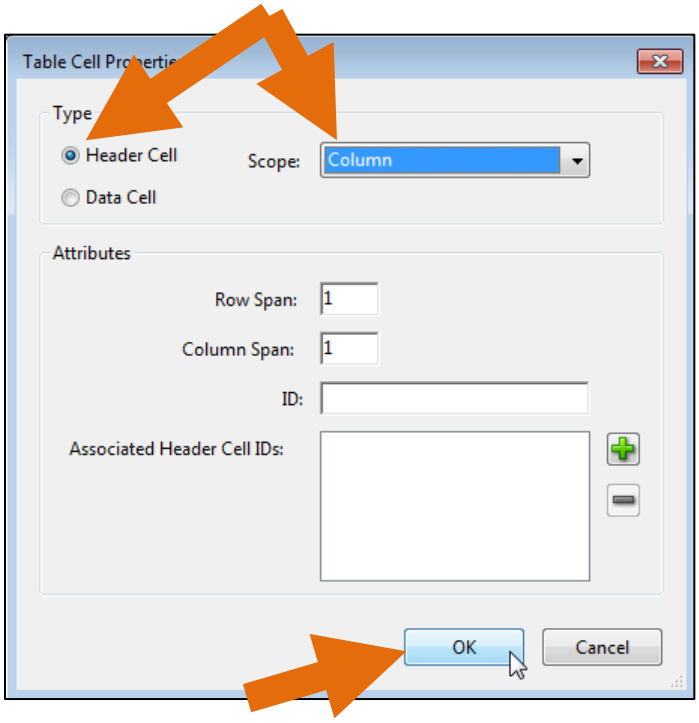


If the header row(s) are not marked with a *TH* tag, select/highlight all of the header cells (common).



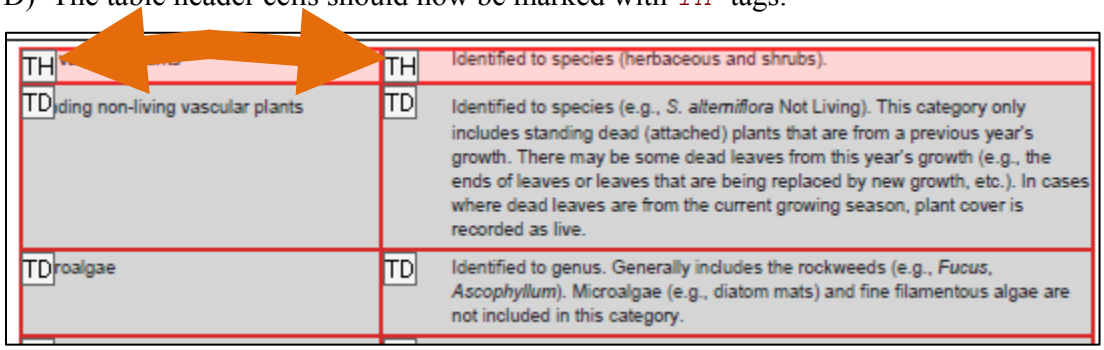
A) Right-click on the selected cells and choose the `Table Cell Properties` option.

B) On the next screen, check the *Header Cell* option and in the *Scope* drop-down menu, choose *Colum*.



C) Click the *OK* button.

D) The table header cells should now be marked with *TH* tags.



<u>For tables generated in MS Word that were not tagged at all (MS Word documents usually use Times New Roman and Arial fonts fonts):</u>

A) Obtain a copy of the final MS Word file from the author.

B) Open the original MS Word file, and make sure that the table was formatted using the basic table formatting guidelines provided in our document templates.

C) Export just the page(s) containing that individual table to a new and stand-alone PDF file, using the procedures outlined in our document templates or the MS Word Procedures for Producing Section 508 Accessible PDF Documents.

D) In the new and stand-alone PDF file, edit and update the tags for the entire page, and making sure to check and update the table in `Table Editor` mode.

   a) This will fix most table tagging issues (most problems are caused by export errors).

   b) The tools for exporting tables to PDF format are rather simplistic and unpredictable, however, and you may need to export that page to PDF format multiple times to get a clean or good export.

   c) If you cannot adequately tag the table after multiple attempts:

      i) You will need to manually rebuild that table for the end-user in MS Word using the table formatting guidelines provided in our document templates or the MS Word Procedures for Producing Section 508 Accessible PDF Documents.

      ii) Export the new page(s) to PDF (as outlined in step C above).

      iii) Edit and update the tags for the entire page as required.

      iv) Repeat steps i-iii above, until you have an adequately tagged page.

E) Once the page is tagged correctly, in the main PDF document, replace the "bad" page with the new one using the `Tools / Pages / Replace Page` menu option.

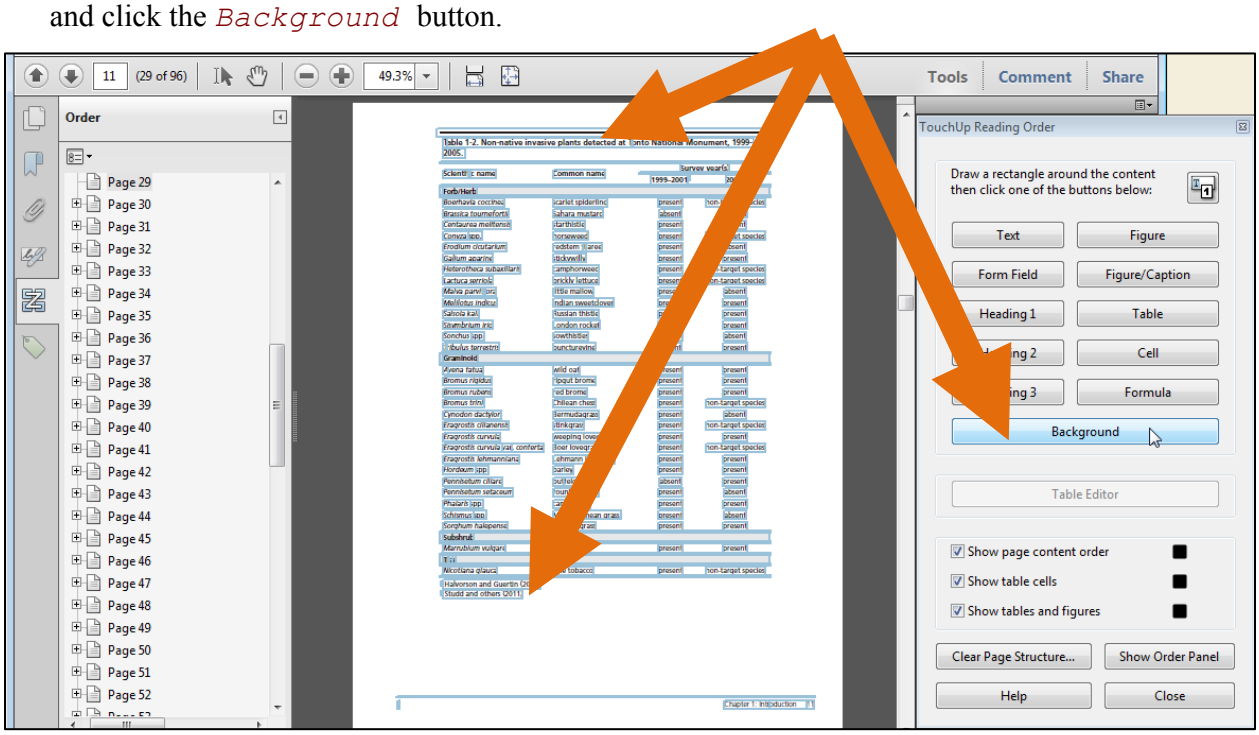
F) Use the `TouchUp Reading Order` and `Table Editor` accessibility tools to check the tags in the new page in the main PDF file.

   Note: These tools are also rather unpredictable, and you may need to replace the page multiple times to get a clean or good result.

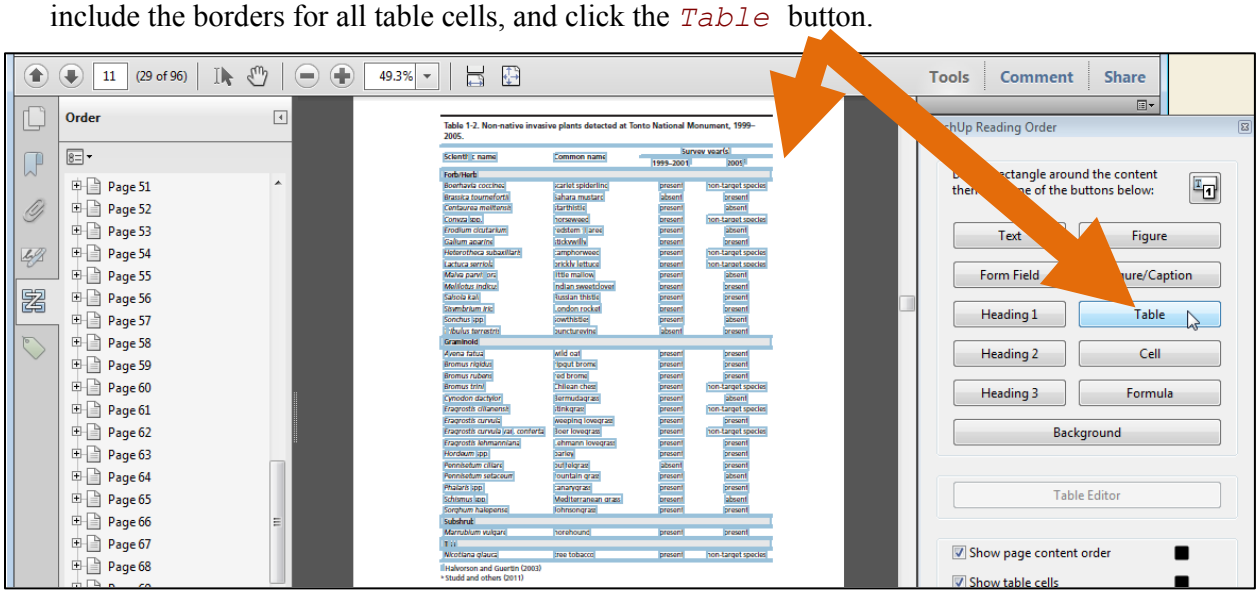
If you can't get a table to tag correctly using the steps above, contact Fagan Johnson for assistance.

For Adobe InDesign tables that are not tagged (Adobe InDesign documents almost always use NPS Rawlinson and Adobe Frutiger fonts):

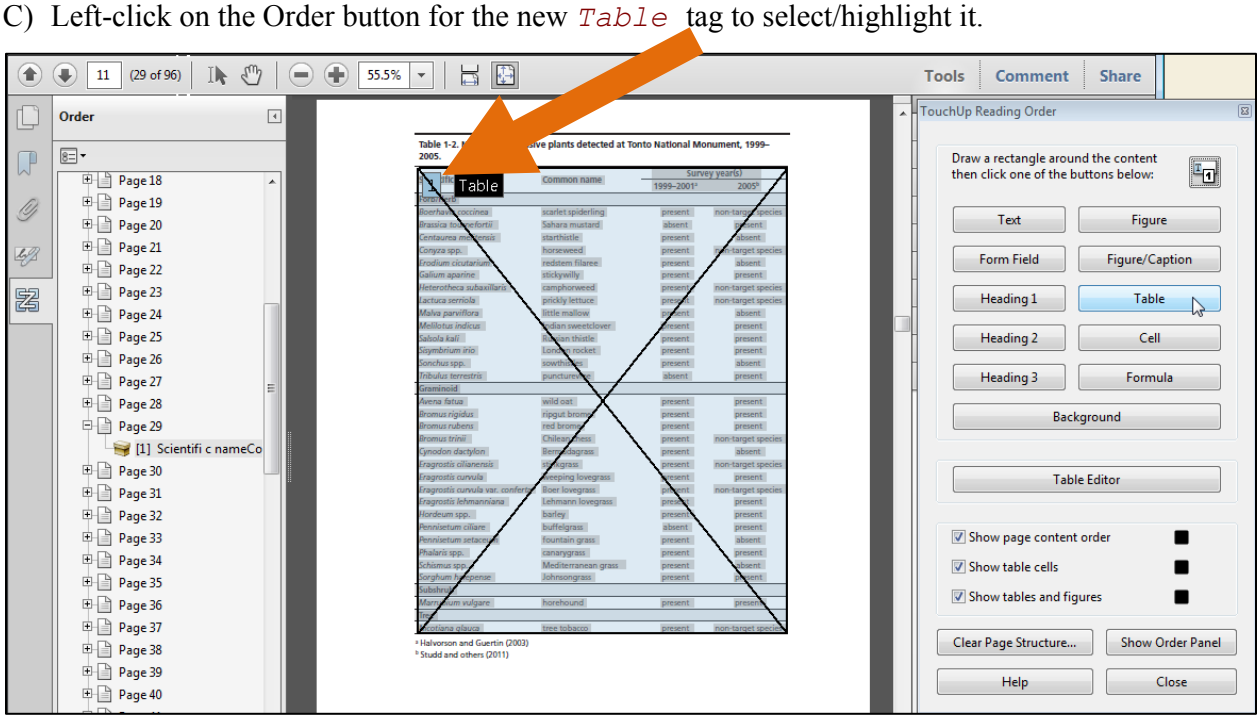
A) In most cases, simply left-click with your mouse and draw a polygon around all page elements, and click the `Background` button.



B) Left-click with your mouse and draw a polygon just around the entire table, making sure to include the borders for all table cells, and click the `Table` button.



C) Left-click on the Order button for the new `Table` tag to select/highlight it.



D) Left-click on the Table button.

Note: With Adobe InDesign tables, this extra step will usually tag most of the table cells correctly for you.

E) Open the table in `Table Editor` mode, and:

a) If the content is placed into table cells correctly, just re-tag `TD` cells as `TH` cells as needed.

b) You may need to repeat steps A-D a few times to get a clean/good result.

Note: Since Adobe InDesign and Adobe Acrobat are maintained by the same company, Adobe InDesign files almost always export to PDF format with enough program-specific information to make this work.

If the above did not work:

A) Obtain a copy of the final Adobe InDesign file from the author.

B) Open the original Adobe InDesign file, and make sure that the table was formatted using the basic table formatting guidelines provided in our document templates and in the Adobe InDesign Procedures for Producing Section 508 Accessible PDF Documents.

C) Export just the page(s) containing that individual table to a new and stand-alone PDF file, using the procedures outlined in the Exporting the Final Adobe InDesign Document to Acrobat Format section of this paper.

D) In the new and stand-alone PDF file, edit and update the tags for the entire page, and making sure to check and update the table in `Table Editor` mode.

a) This will fix most table tagging issues (most problems are caused by export errors).

b) The tools for exporting tables to PDF format are rather simplistic and unpredictable, however, and you may need to export that page to PDF format multiple times to get a clean or good export.

c) If you cannot adequately tag the table after multiple attempts:

   i) You will need to manually rebuild that table for the end-user in Adobe InDesign using the table formatting guidelines provided in in our document templates and in the Adobe InDesign Procedures for Producing Section 508 Accessible PDF Documents.

   ii) Export the new page(s) to PDF (as outlined in step C above).

   iii) Edit and update the tags for the entire page as required.

   iv) Repeat steps i-iii above, until you have an adequately tagged page.

E) Once the page is tagged correctly, in the main PDF document, replace the "bad" page with the new one using the `Tools / Pages / Replace Page` menu option.

F) Use the `TouchUp Reading Order` and `Table Editor` accessibility tools to check the tags in the new page in the main PDF file.

   Note: These tools are also rather unpredictable, and you may need to replace the page multiple times to get a clean or good result.

If you can't get a table to tag correctly using the steps above, contact Fagan Johnson for assistance.

Background Tag Options

Tags the selection as a background element, or artifact, removing the item from the tag tree so that it doesn't appear in the reflowed document and isn't read by screen readers.

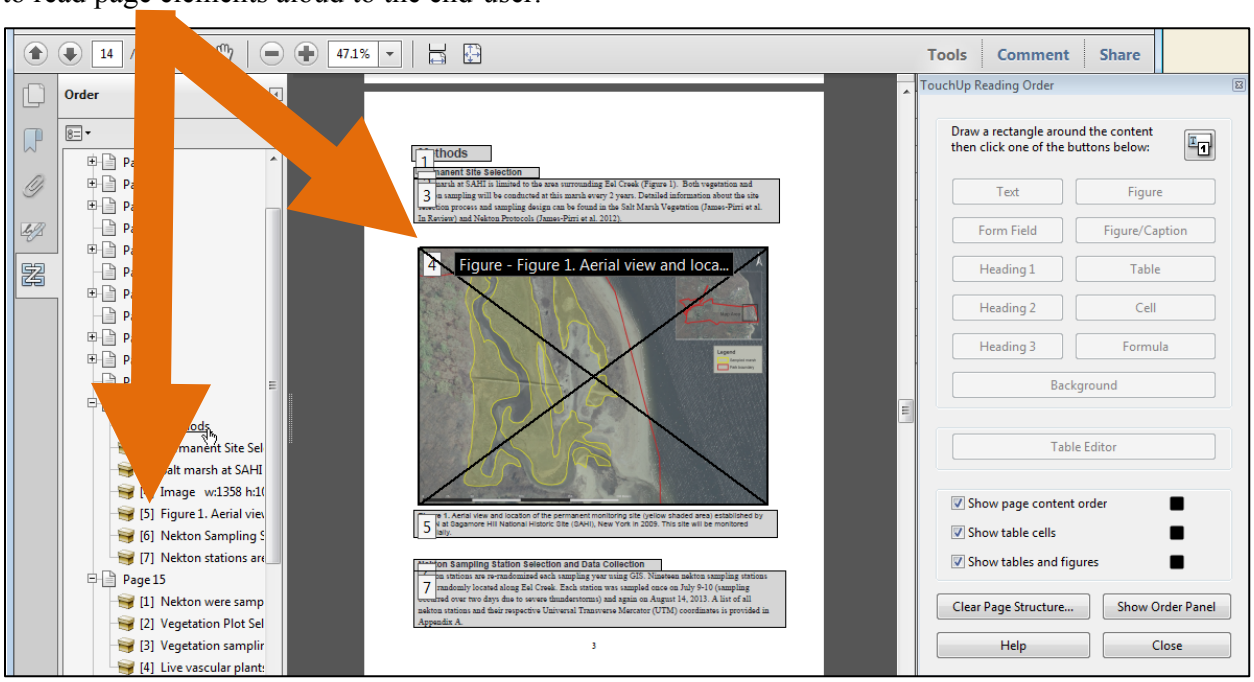
We typically use `Background` tags for certain graphic and other page elements that have no interpretive value for the visually-impaired. Some examples:

- Horizontal lines that were placed on the page to accentuate chapter changes, page headings, etc.
- Bars and lines associated with the page-top banners on our front cover pages.
- Borders around text boxes.
- Header or footer statements that are repeated on multiple pages.
  - For documents over a few pages in length, all headers, footers, page numbers, etc. should be tagged as `Background` elements.
  - Headers, footers, page numbers, etc. can be left as text for documents under 3-5 pages long (brochures, briefs, etc.).
- Extra blank text lines often found beside Tables or Figures.
- Multiple blank lines (prevents each blank line from being read aloud to by older screen readers).
- Tables used for purely graphic or layout reasons from MS Word (as with page-top banners on cover pages).

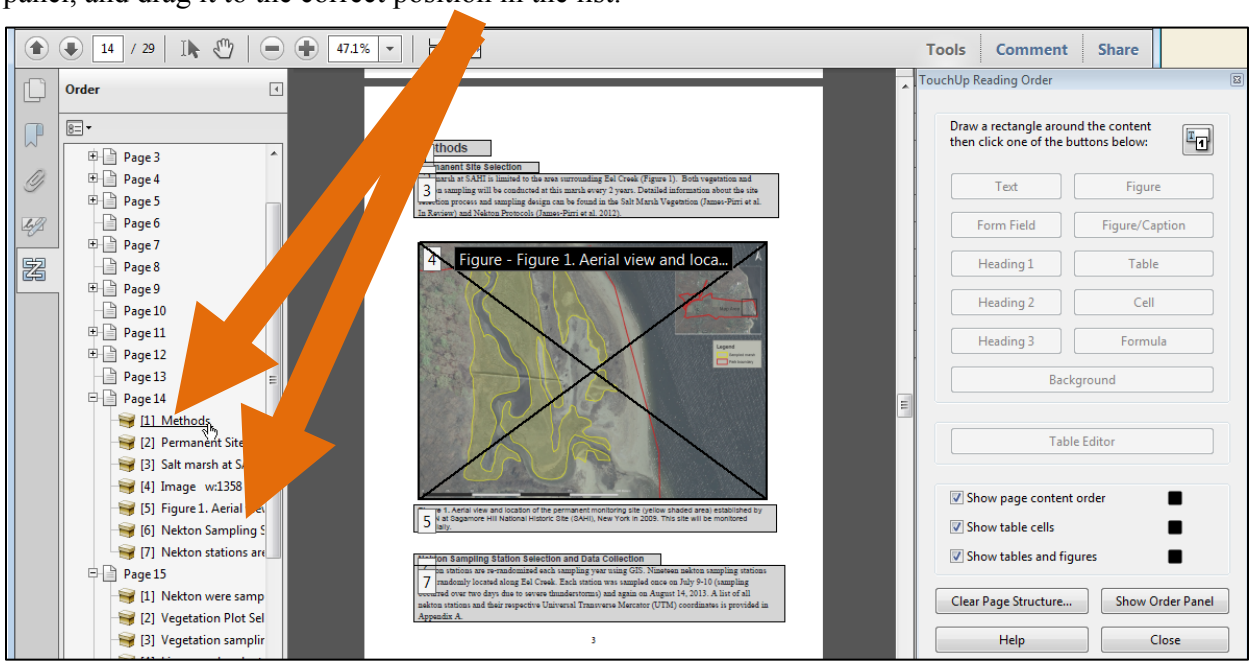
Changing the Page Order of Tagged Elements

When all elements on the page have been tagged for screen readers for the visually-impaired, a white square in the upper left-hand corner that displays the element *Order* number.

The *Order* number corresponds to the reading order that software for the visually-impaired will use to read page elements aloud to the end-user.



To change the order of tagged page elements, simply left-click on a tagged element in the Order panel, and drag it to the correct position in the list.



Note: The Order panel does not allow you to drag tagged elements to be above the current number 1 position on the page. One way to obtain this result:

i) Drag the desired element to the number 2 position.

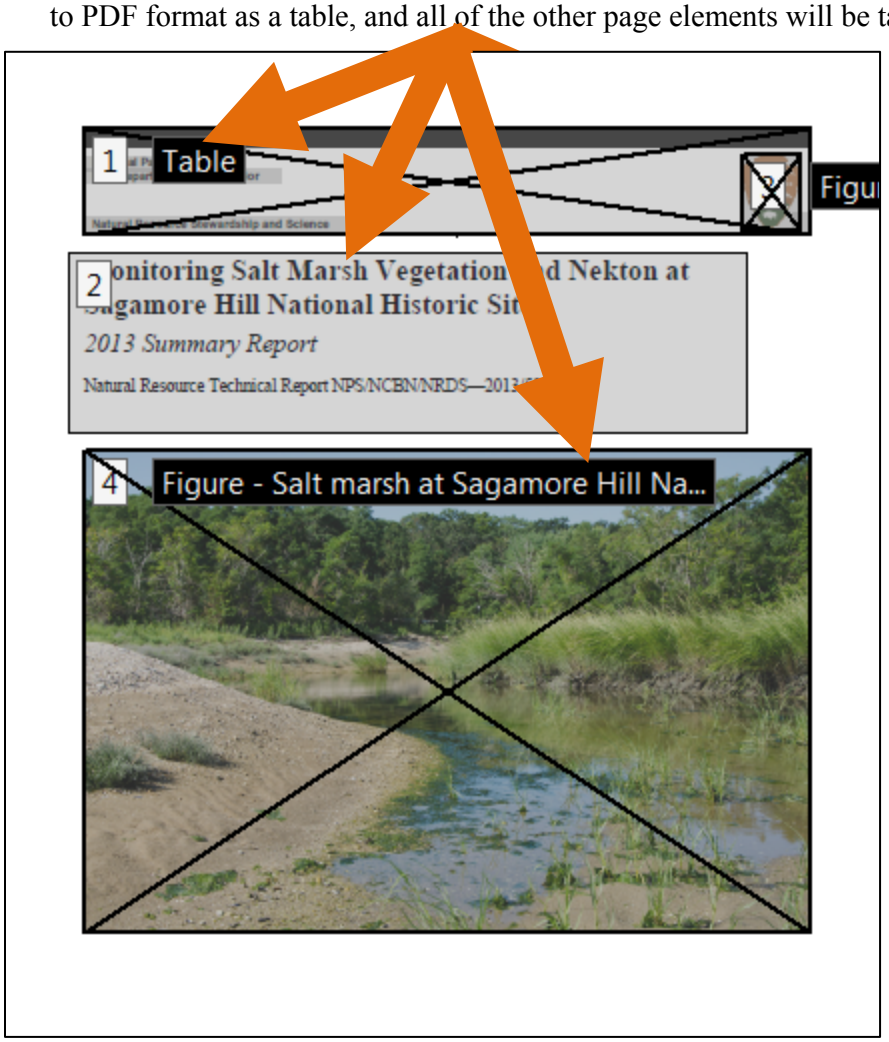
ii) Drag the current number 1 positioned element to be below the new number 2 position.

Front Cover Pages with Page-top Banners

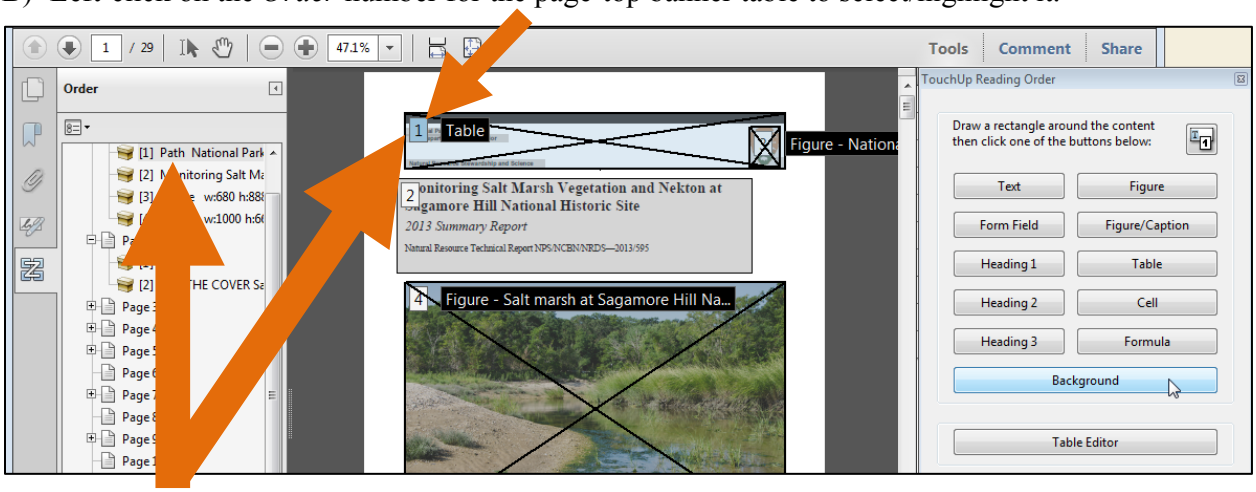
Tagged MS Word Front Cover Pages with a Page-top Banner

If the document was generated using the instructions found in our MS Word templates, the page-top banner will be exported to PDF format as a *Table* element.

A) Viewing the page with the `TouchUp Reading Order` tools, the page-top banner will export to PDF format as a table, and all of the other page elements will be tagged for you.



B) Left-click on the *Order* number for the page-top banner table to select/highlight it.

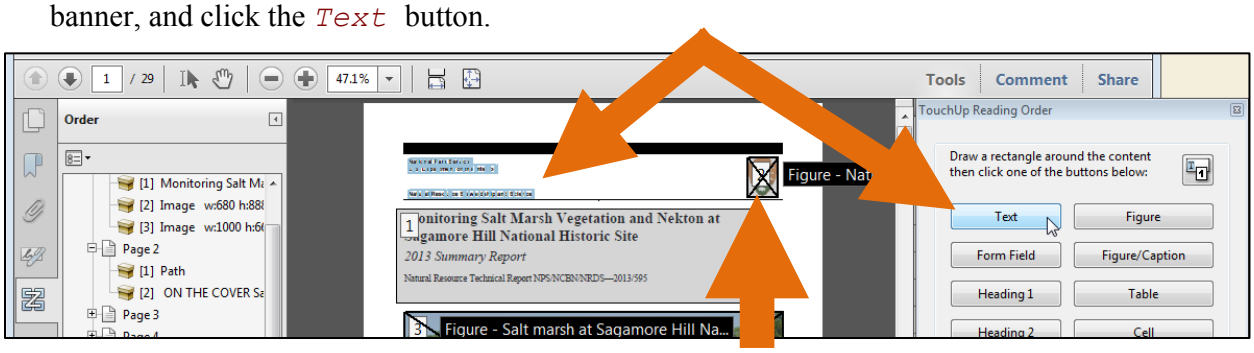


C) **MAKE SURE** that the entire table is the first item in the `Order` panel (number 1). **Skipping this step can cause big problems later.**

D) Left-click on the *Order* number for the page-top banner table to select/highlight it.

E) Left-click on the `Background` button.

F) Left-click with your mouse, and draw a polygon around the first line of text in the page-top banner, and click the `Text` button.



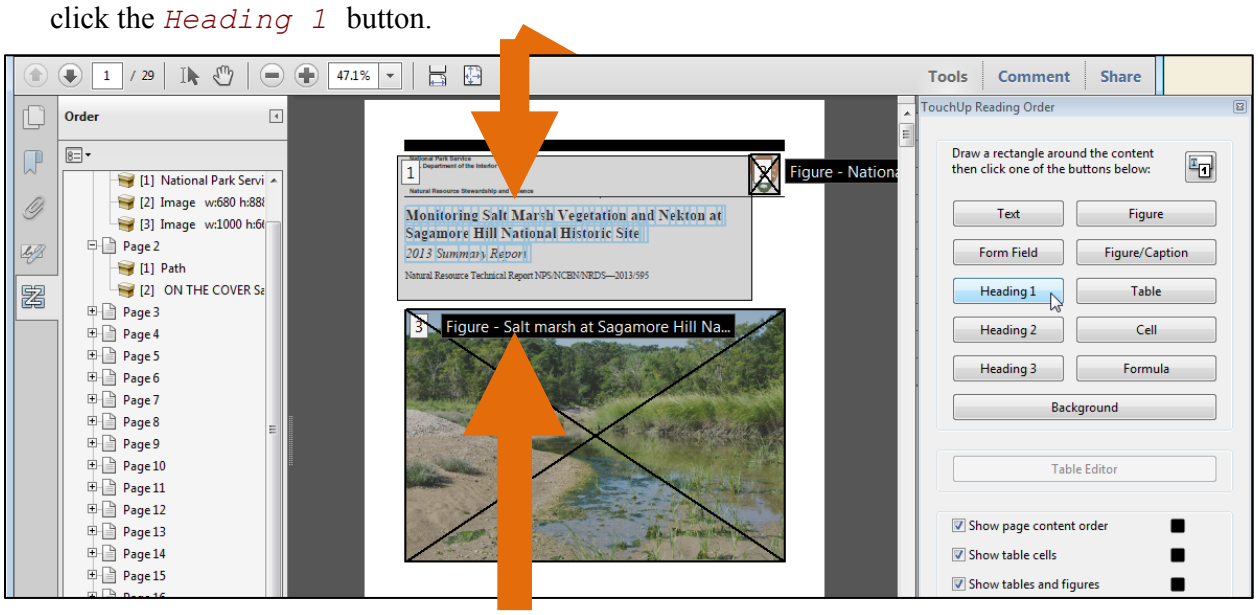
G) Repeat step `F` above for each individual line of text located inside the page-top banner.

Important! Why do we do this? MS Word tables often have either a white (default background setting for MS Word tables) or black background color. If you try to tag multiple lines of text in a table with a background color, the text will automatically be placed on a PDF layer located behind the table background color. This will make the text completely invisible for sighted users.

The quickest fix for page-top banner text that has become invisible, is to completely replace the entire PDF page with a fresh copy. See the Text Becomes Invisible While Changing the Page Reading Order section of this document for further guidance.

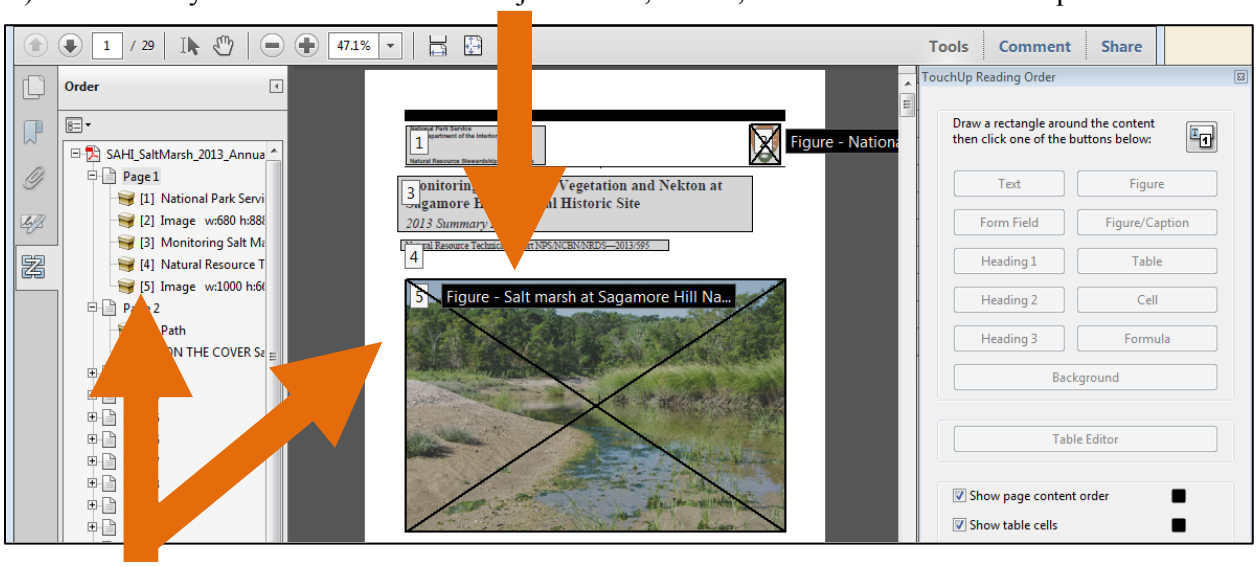
H) Make sure that the NPS arrowhead logo is tagged as a `Figure`, and that it has alternate text (we usually use "*National Park Service Logo*" here – see the Figure Tag Options section for more details).

I) Left-click with your mouse, and draw a polygon around the main report title and sub-title, and click the `Heading 1` button.



J) Make sure that any other cover images are tagged as a `Figure`, and that it has alternate text (for the cover photo/image, we usually use the description found on the Inside Cover Page).

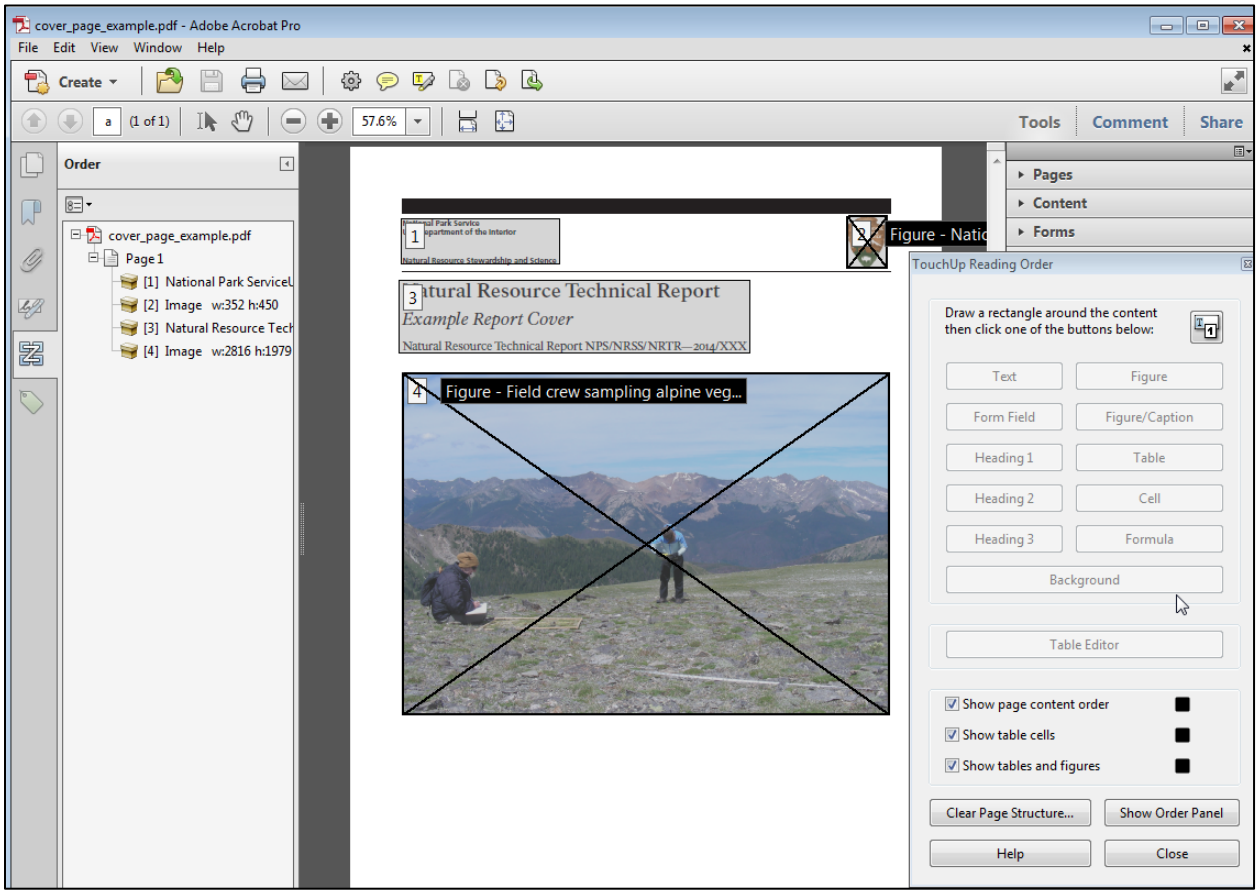
K) Remove any extra blank lines located just above, beside, or below the front cover photo.



L) Use the `Order` tools to set the reading order for all page elements. The end result should look something like the above.

Tagged Adobe InDesign Front Cover Pages with Page-top Banners

If the document was generated using the instructions found in our more recent Adobe InDesign templates (issued 2014 or later), the page will be exported to PDF format with tags.

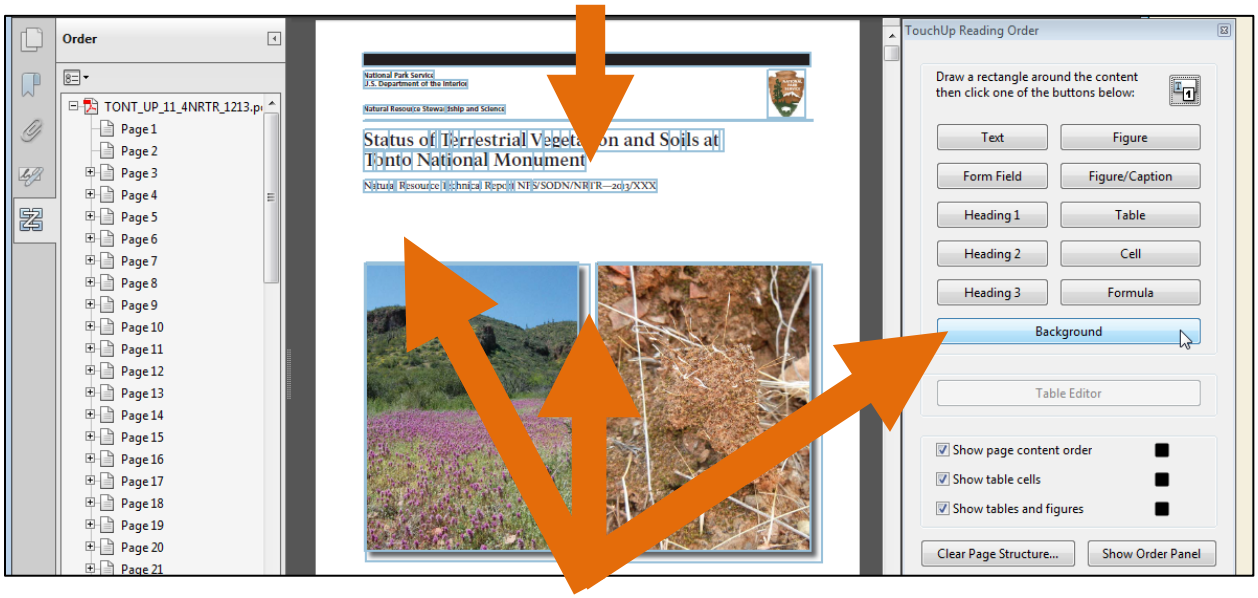


In a vast majority of cases, all that you will need to do is check the order of tagged elements, and make sure that all figures have alternate text.

Front Cover Pages with Page-top Banners that Have No Tags

If no tags were added to the Cover Page, then the same basic steps work for reports generated with either MS Word or Adobe InDesign.

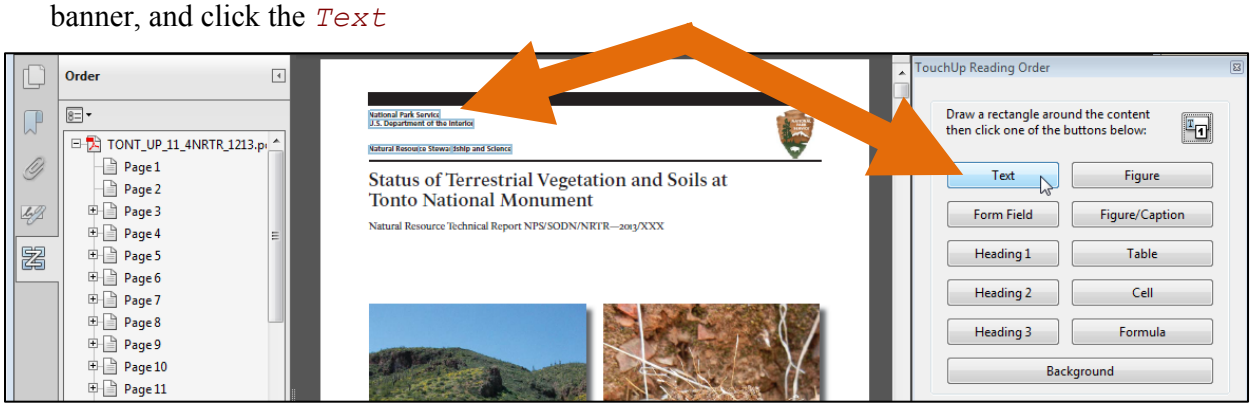
A) Viewing the page with the `TouchUp Reading Order` tools, the page will have no tags at all.



B) Left-click with your mouse, and draw a polygon around all elements on the page to select/highlight them, and click the `Background` button.

Note: This step helps to ensure that any invisible page elements that were not manually tagged by you will be ignored by screen readers for the visually-impaired.

C) Left-click with your mouse, and draw a polygon around the first line of text in the page-top banner, and click the `Text`



M) Repeat step `C` above for each individual line of text located inside the page-top banner.

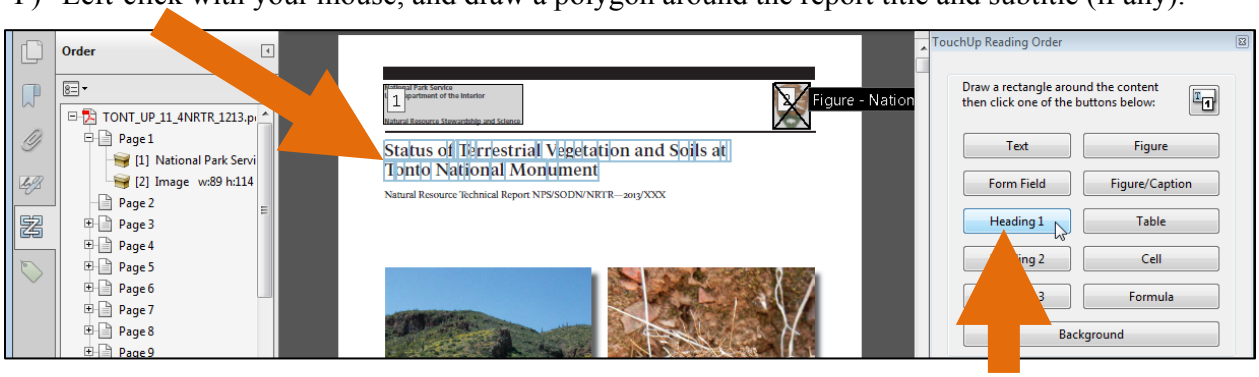
Important! Why do we do this? MS Word tables and Adobe InDesign text frames often have either a white (default background setting for MS Word tables) or black background color. If you try to tag multiple lines of text in a table with a background color, the text will automatically be placed on a PDF layer located behind the table background color. This will make the text completely invisible for sighted users.

The quickest fix for page-top banner text that has become invisible, is to completely replace the entire PDF page with a fresh copy. See the Text Becomes Invisible While Changing the Page Reading Order section of this document for further guidance.

D) Left-click with your mouse, and draw a polygon around the NPS arrowhead logo.

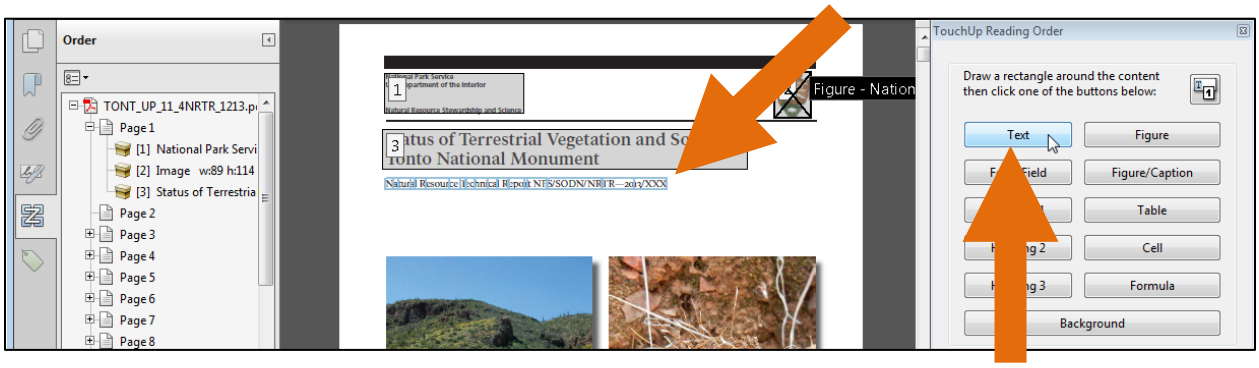
E) Click the `Figure` button, and make sure to add alternate text to the new `Figure` tag (we usually use "National Park Service Logo" here – see the Figure Tag Options section for more details).

F) Left-click with your mouse, and draw a polygon around the report title and subtitle (if any).



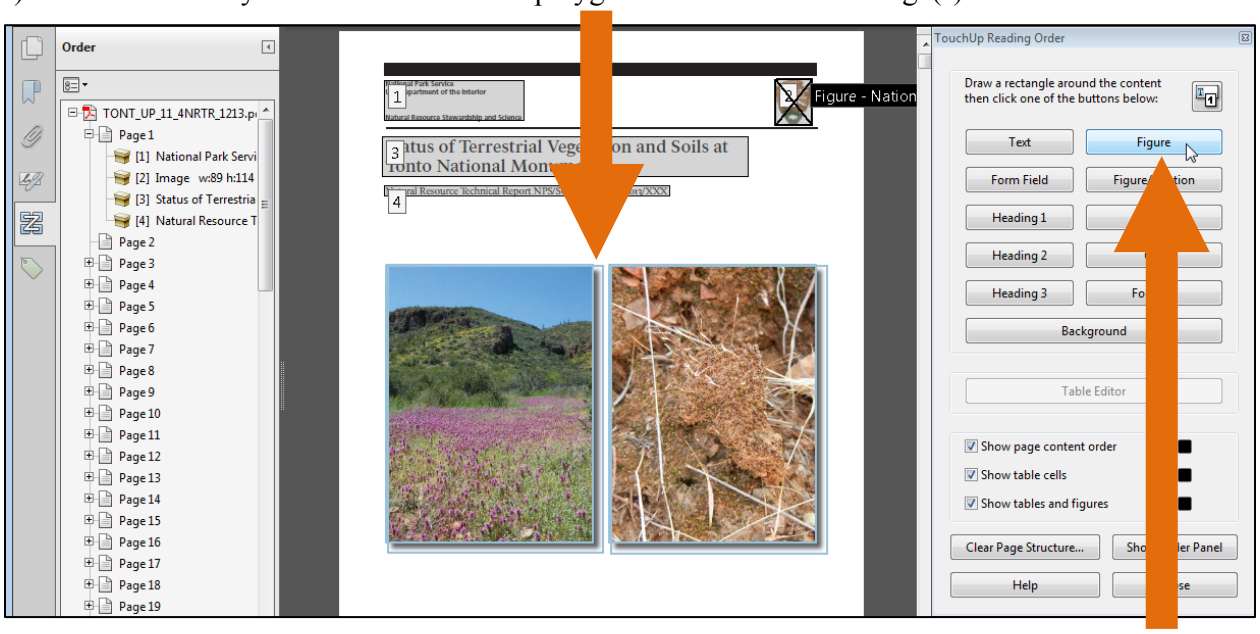
G) Click the `Heading 1` button.

H) Left-click with your mouse, and draw a polygon around the report series name/number.



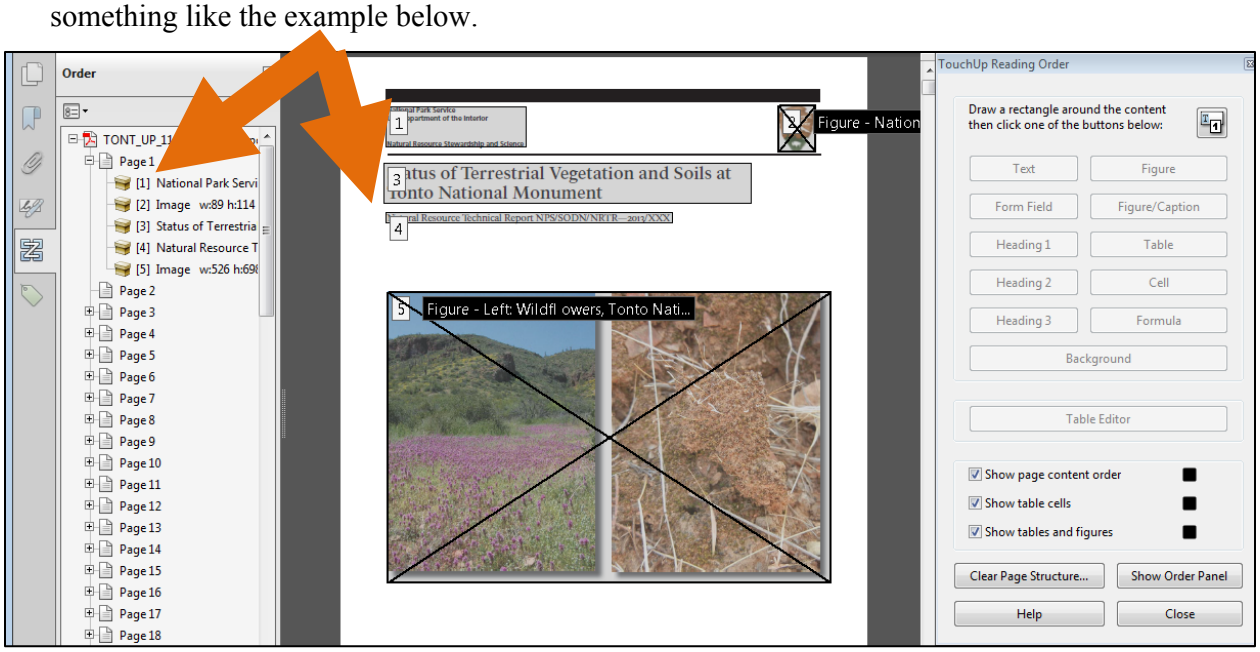
I) Click the `Text` button.

J) Left-click with your mouse and draw a polygon around the cover image(s).



K) Click the `Figure` button, and make sure to add alternate text to the new `Figure` tag (we usually use the "*On the Cover*" caption located at the bottom of the Inside Front Cover page – see the Figure Tag Options section for more details).

L) Use the `Order` tools to set the reading order for all page elements. The end result should look something like the example below.

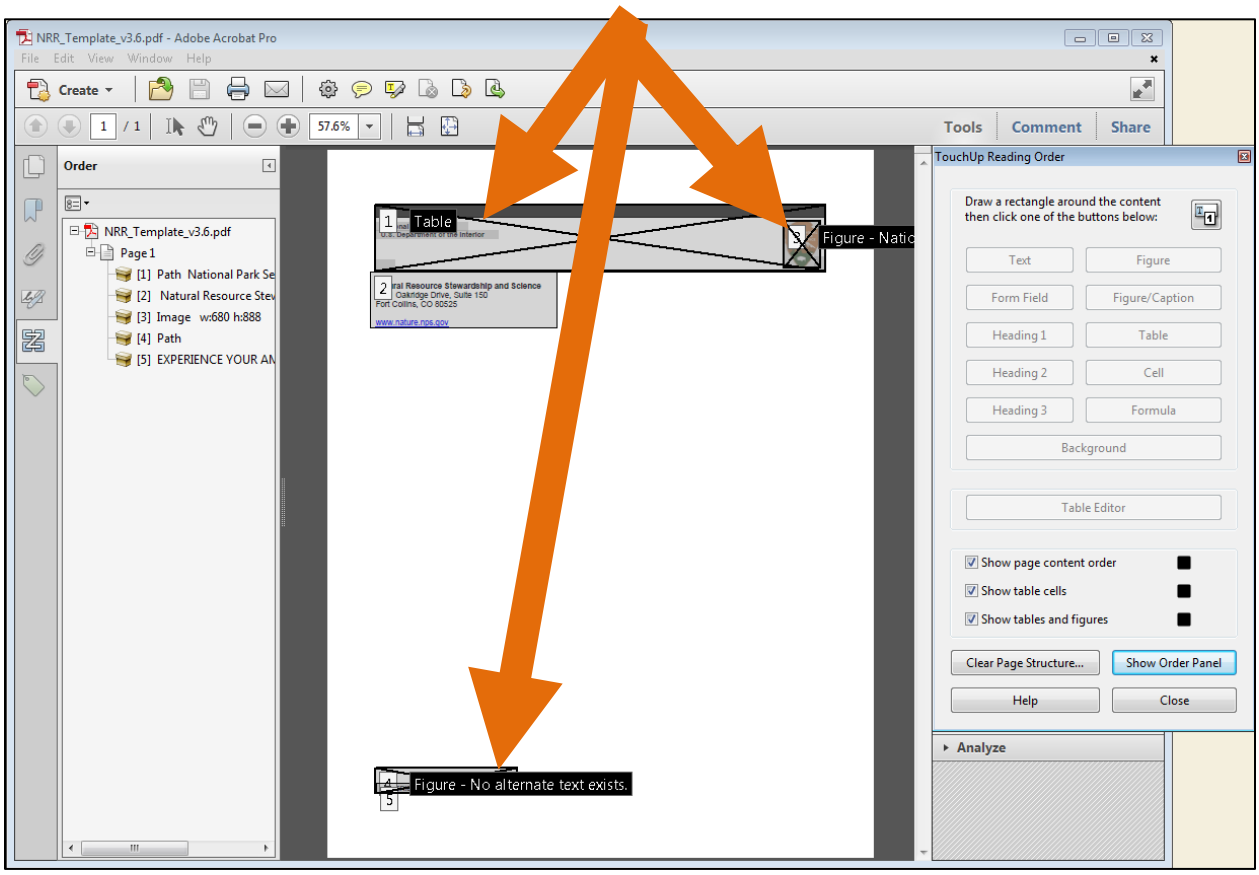


Back Cover Pages with a Page-top Banner

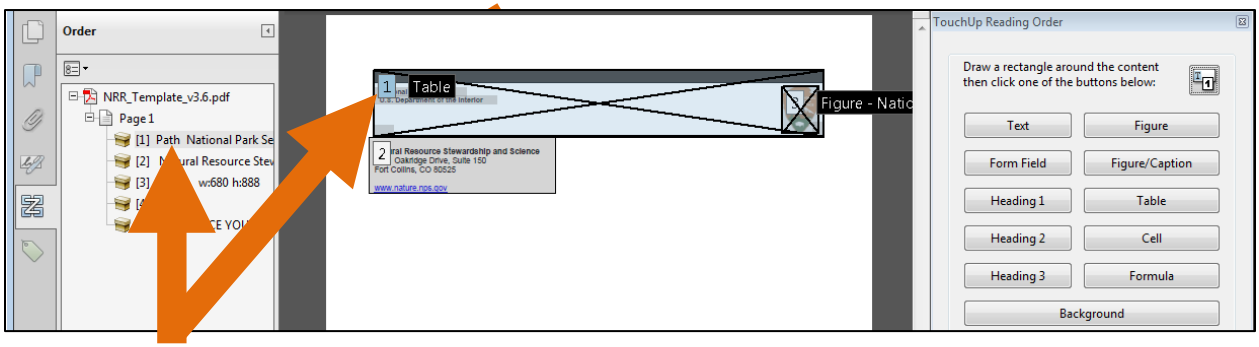
Tagged MS Word Back Cover Pages with a Page-top Banner

If the document was generated using the instructions found in our MS Word templates, the page-top banner will be exported to PDF format as a *Table* element.

A) Viewing the page with the `TouchUp Reading Order` tools, the page-top banner will export to PDF format as a table, and all of the other page elements will be tagged for you.

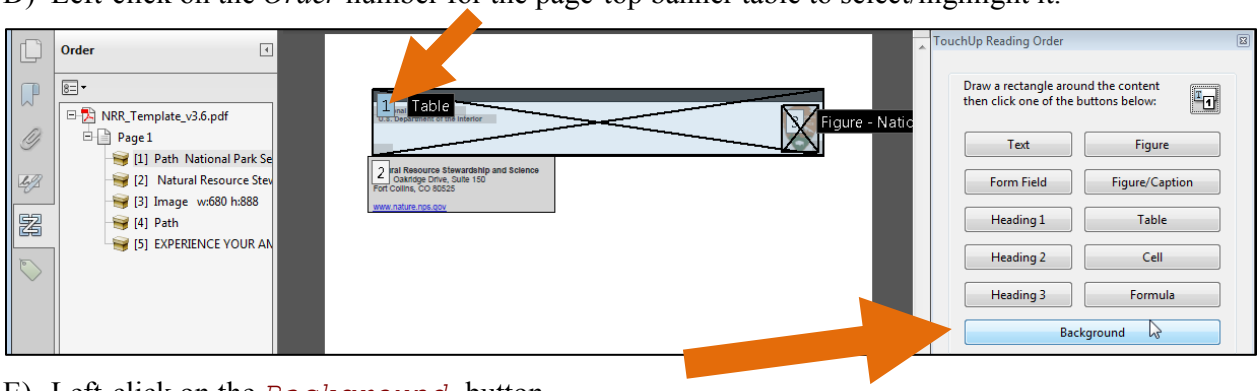


B) Left-click on the *Order* number for the page-top banner table to select/highlight it.



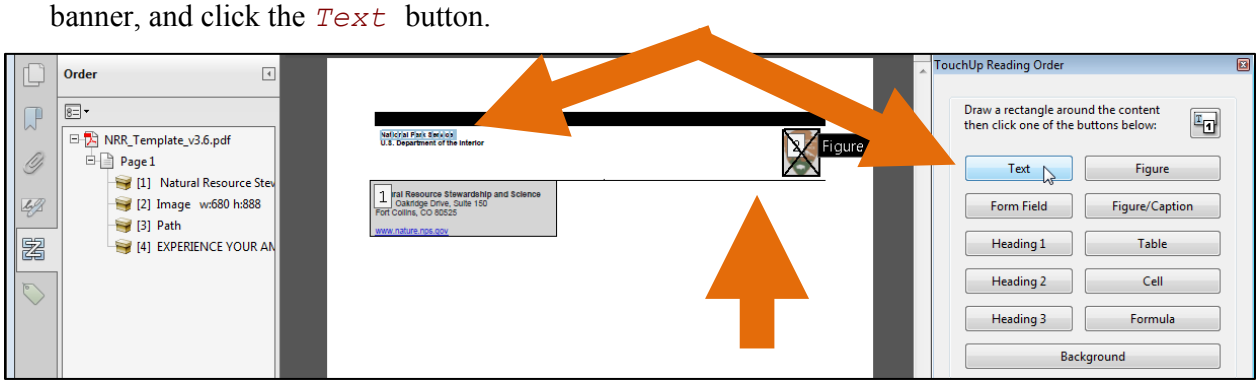
C) **MAKE SURE** that the entire table is the first item in the `Order` panel (number 1). **Skipping this step can cause big problems later.**

D) Left-click on the *Order* number for the page-top banner table to select/highlight it.



E) Left-click on the `Background` button.

F) Left-click with your mouse, and draw a polygon around the first line of text in the page-top banner, and click the `Text` button.



G) Repeat step `F` above for the second line of text located inside the page-top banner.

Important! Why do we do this? MS Word tables often have either a white (default background setting for MS Word tables) or black background color. If you try to tag multiple lines of text in a table with a background color, the text will automatically be placed on a PDF layer located behind the table background color. This will make the text completely invisible for sighted users.

The quickest fix for page-top banner text that has become invisible, is to completely replace the entire PDF page with a fresh copy. See the Text Becomes Invisible While Changing the Page Reading Order section of this document for further guidance.

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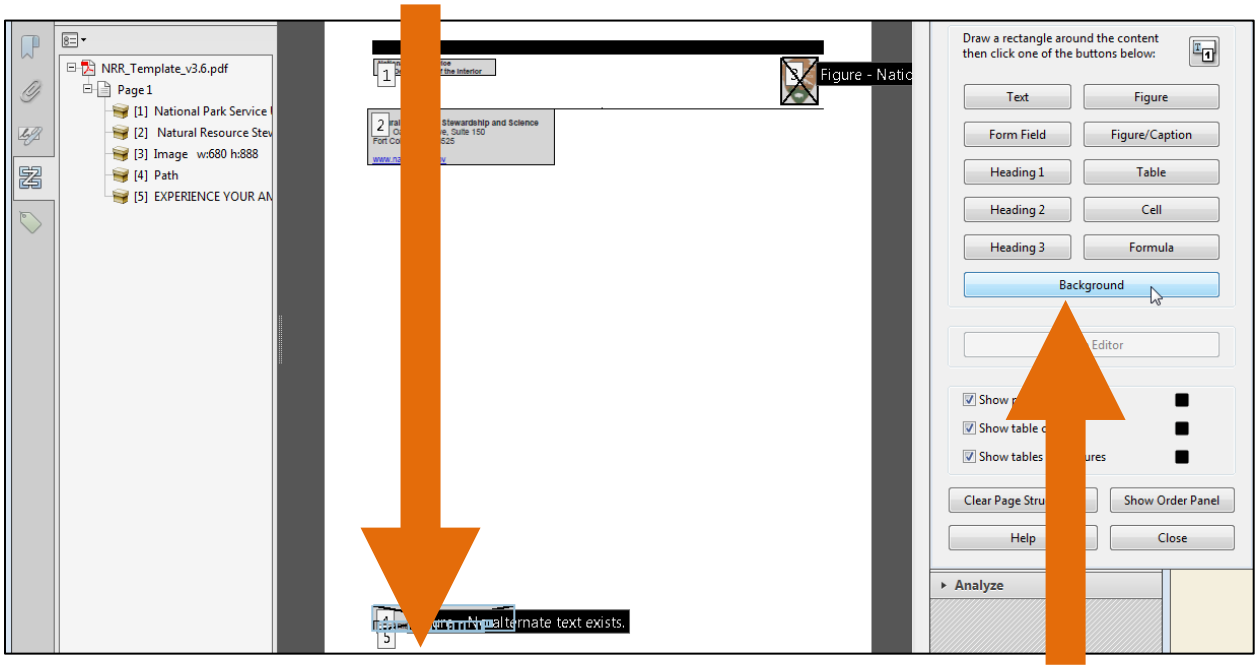
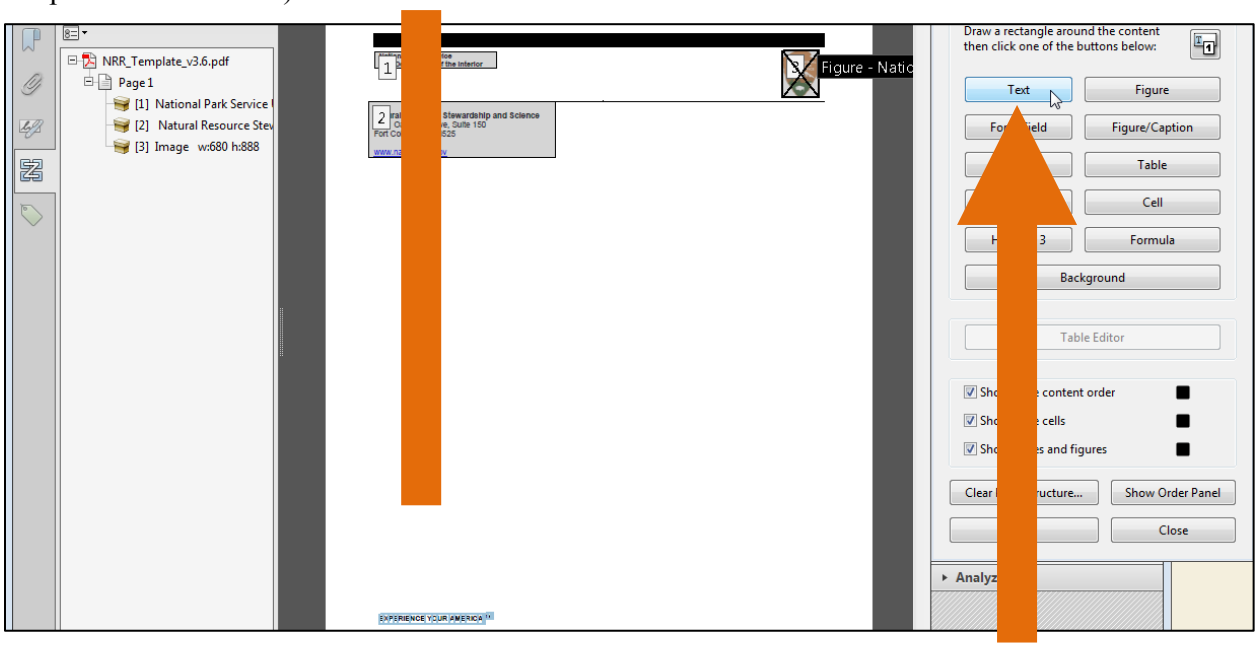
H) Left-click with your mouse, and draw a polygon around the text box(s) located at the bottom of the page (MS Word text boxes are always exported to PDF with `Figure` tags).



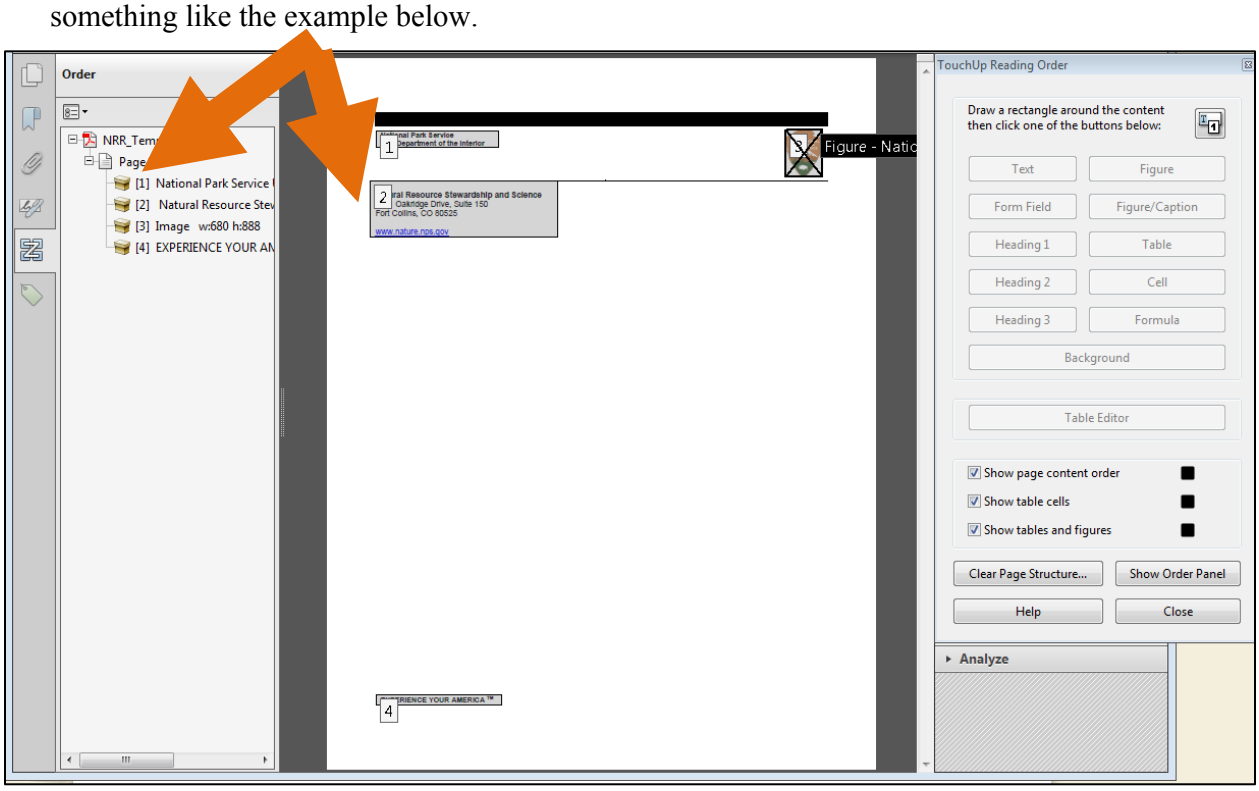
I) Click the `Background` button. For more information about MS Word text boxes in the final PDF, see the [MS Word Text Boxes Are Tagged as Figure Elements](#) section of this document.

J) Left-click with your mouse, and select just the "*Experience Your America*™" text (do not select part of the text box).



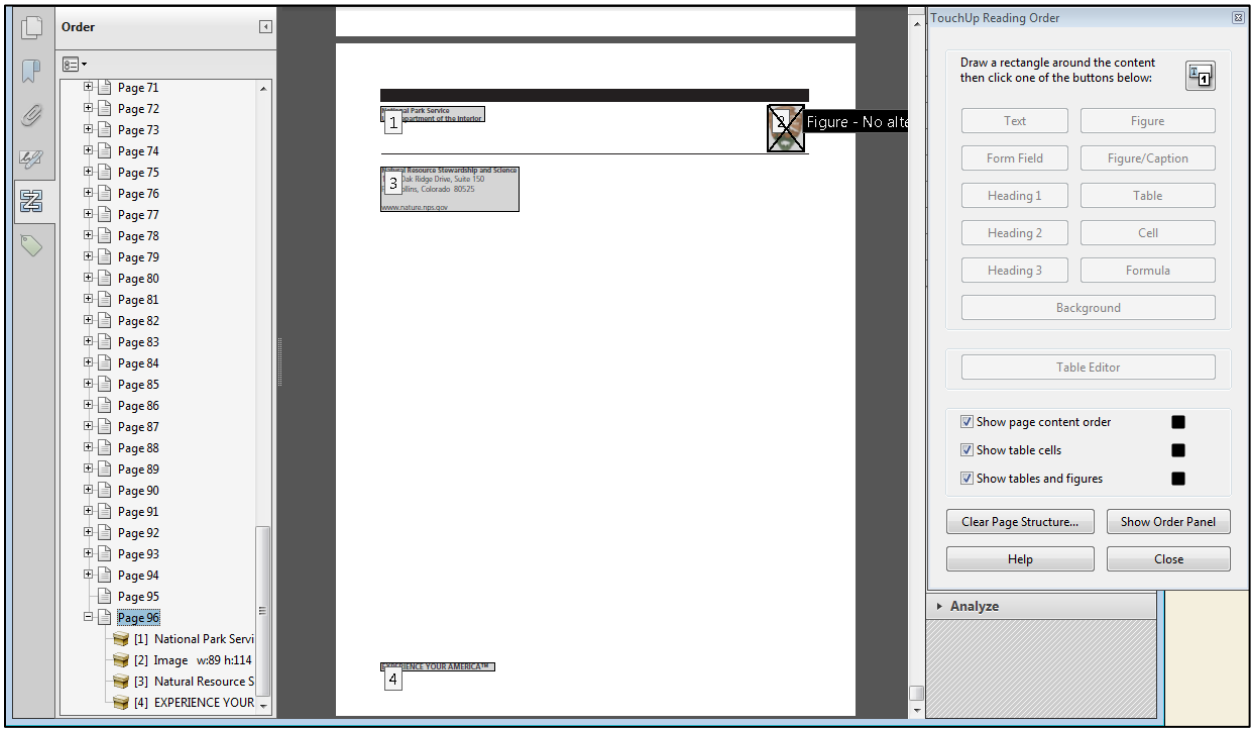
K) Click the `Text` button.

L) Use the `Order` tools to set the reading order for all page elements. The end result should look something like the example below.



Tagged Adobe InDesign Back Cover Pages with Page-top Banners

If the document was generated using the instructions found in our more recent Adobe InDesign templates (issued 2014 or later), the page will be exported to PDF format with tags.

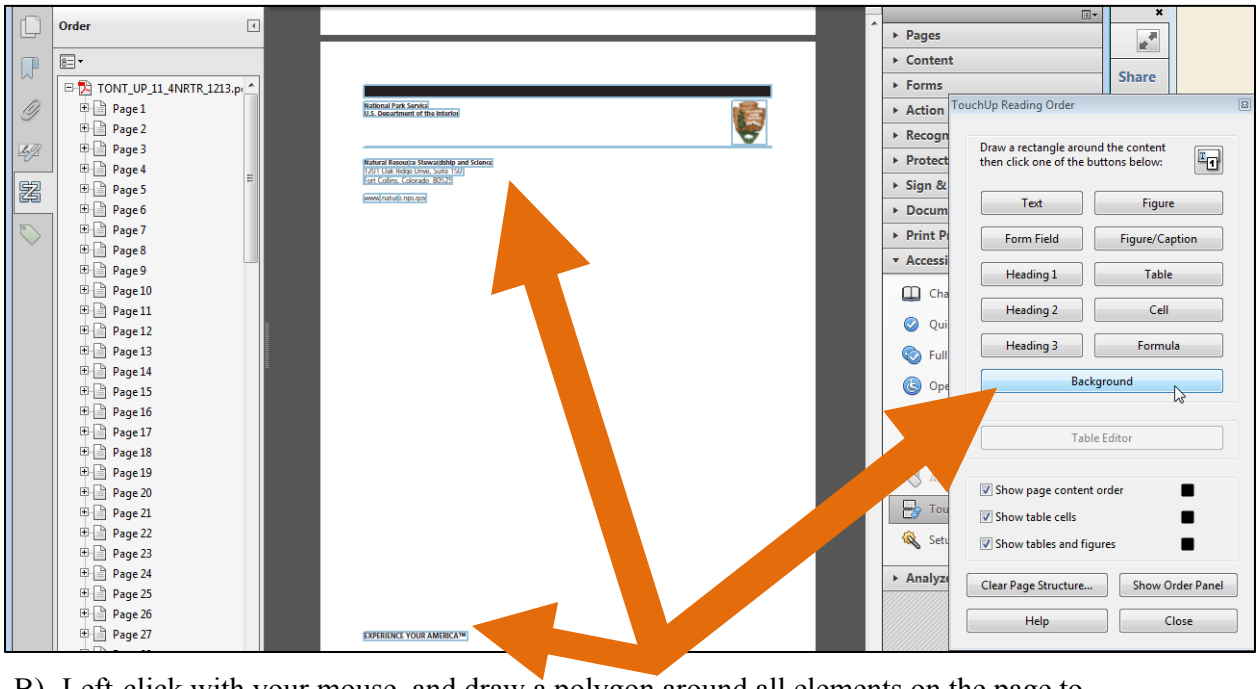


In a vast majority of cases, all that you will need to do is check the order of tagged elements, and make sure that all figures have alternate text.

Back Cover Pages with Page-top Banners that Have No Tags

If no tags were added to the Cover Page, then the same basic steps work for reports generated with either MS Word or Adobe InDesign.

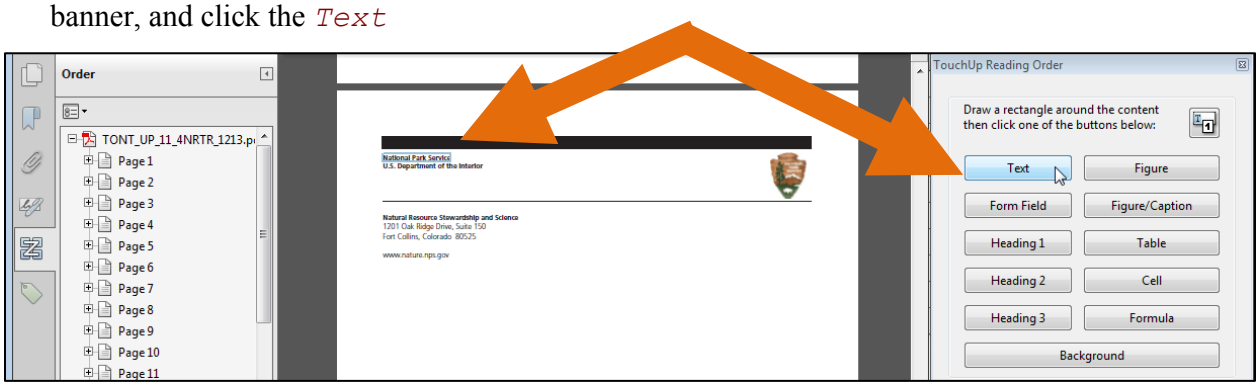
A) Viewing the page with the `TouchUp Reading Order` tools, the page will have no tags at all.



B) Left-click with your mouse, and draw a polygon around all elements on the page to select/highlight them, and click the `Background` button.

Note: This step helps to ensure that any invisible page elements that were not manually tagged by you will be ignored by screen readers for the visually-impaired.

C) Left-click with your mouse, and draw a polygon around the first line of text in the page-top banner, and click the `Text`



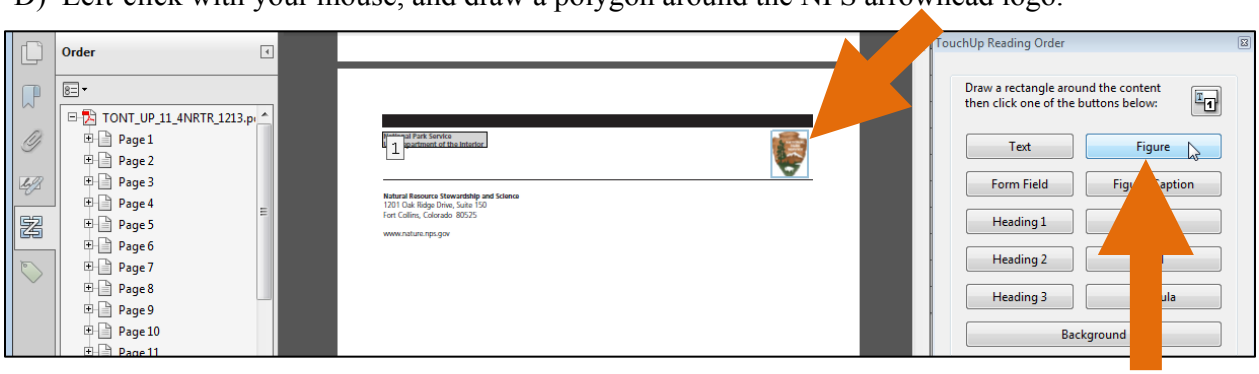
N) Repeat step `C` above for each individual line of text located inside the page-top banner.

Important! Why do we do this? MS Word tables and Adobe InDesign text frames often have either a white (default background setting for MS Word tables) or black background color. If you try to tag multiple lines of text in a table with a background color, the text will

automatically be placed on a PDF layer located behind the table background color. This will make the text completely invisible for sighted users.

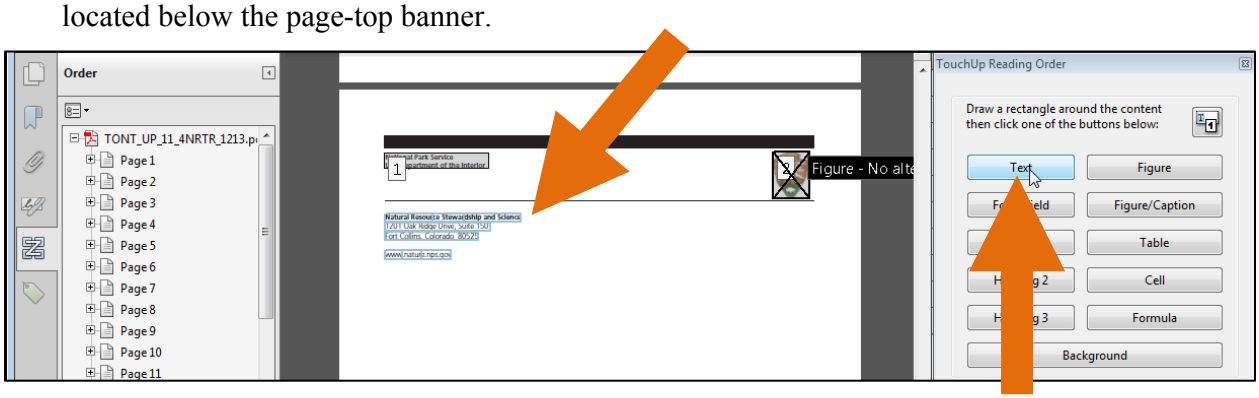
The quickest fix for page-top banner text that has become invisible, is to completely replace the entire PDF page with a fresh copy. See the Text Becomes Invisible While Changing the Page Reading Order section of this document for further guidance.

D) Left-click with your mouse, and draw a polygon around the NPS arrowhead logo.



E) Click the `Figure` button, and make sure to add alternate text to the new `Figure` tag (we usually use "National Park Service Logo" here – see the Figure Tag Options section for more details).

F) Left-click with your mouse, and draw a polygon around the publication location paragraph located below the page-top banner.



G) Click the `Text` button.

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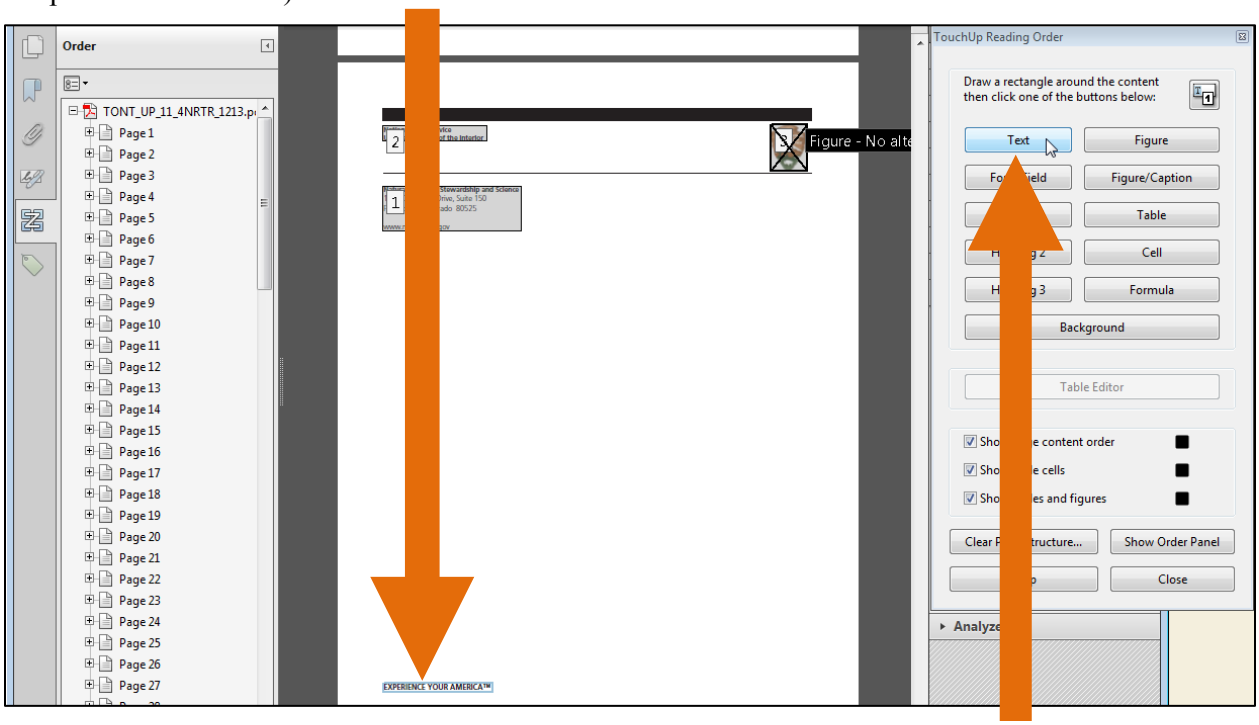
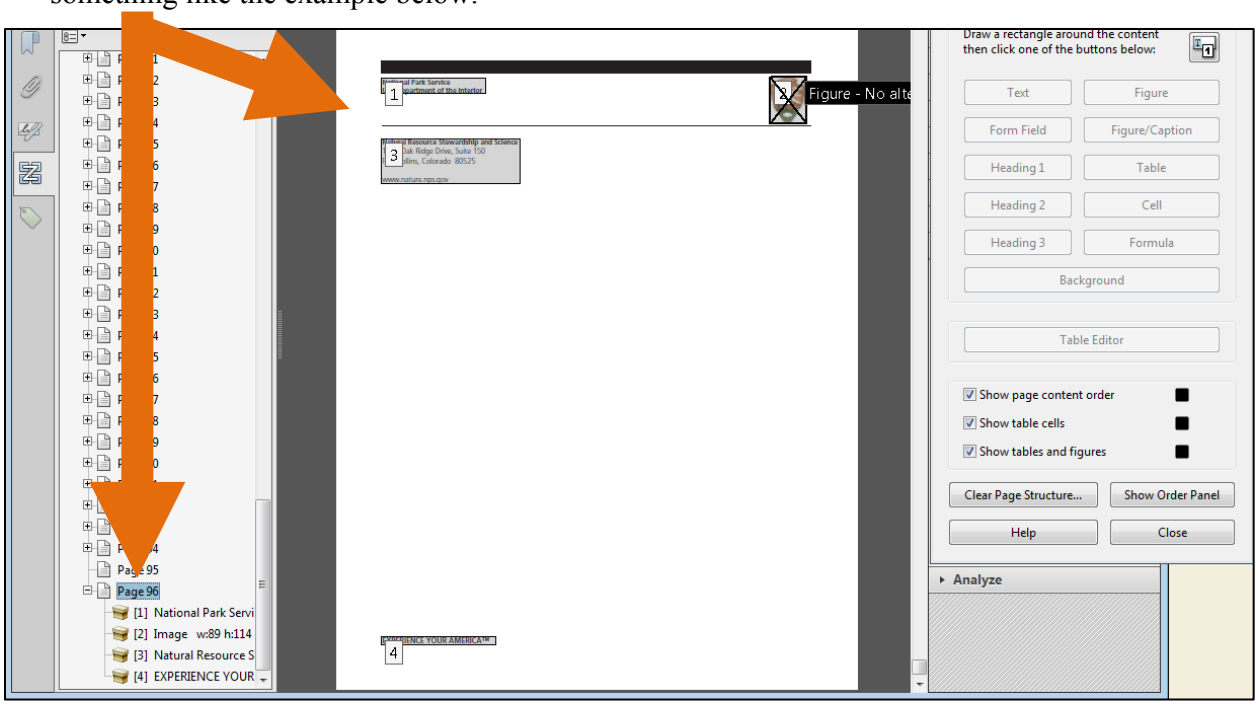
H) Left-click with your mouse, and select just the "*Experience Your America™*" text (do not select part of the text box).



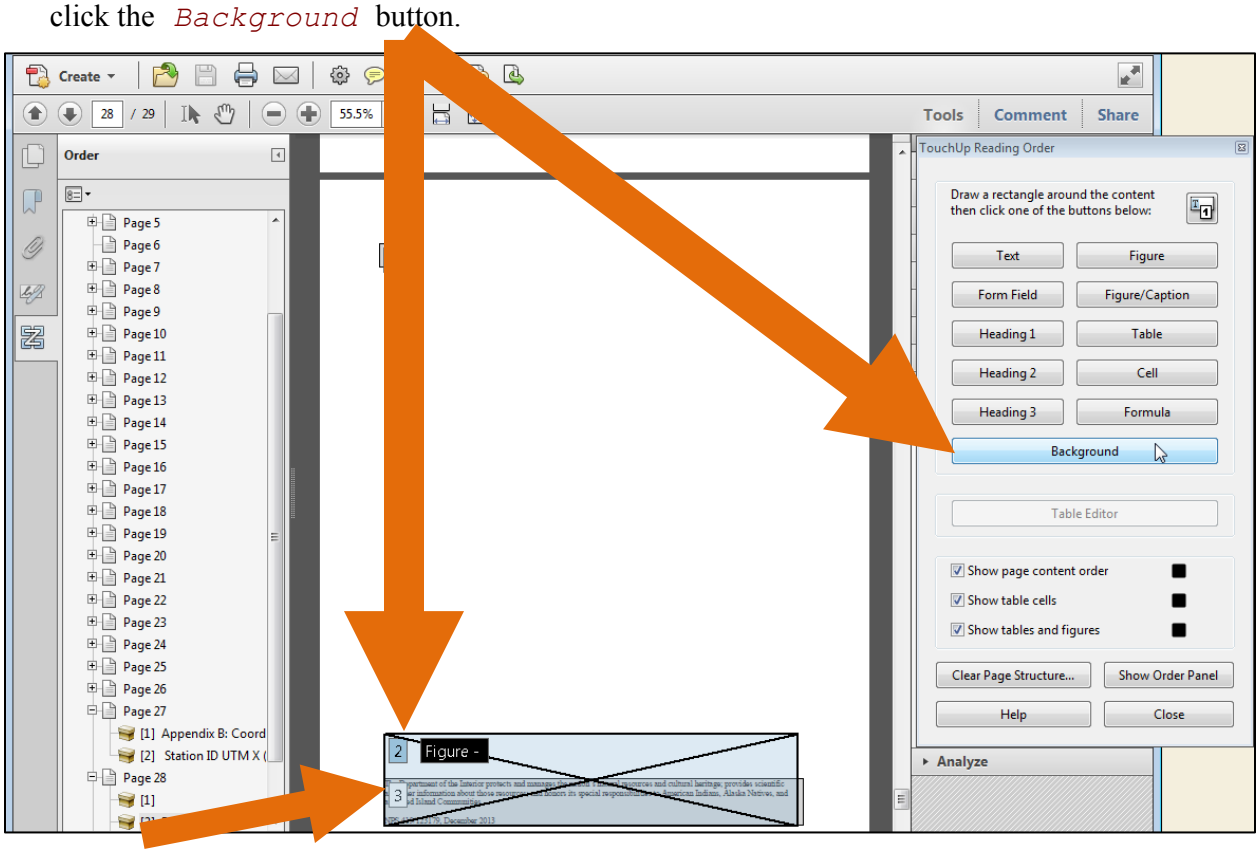
I) Click the `Text` button.

J) Use the `Order` tools to set the reading order for all page elements. The end result should look something like the example below.



Traditional back cover pages for reports with tags (generated using the techniques outlined in our current MS Word or Adobe Acrobat templates for NRTR, NRR, and NRDS reports):

A) Viewing the inside back cover page with the `TouchUp Reading Order` tools, left-click on the *Order* number for the text box `Figure` at the bottom of the page select/highlight it, and left-click the `Background` button.



B) Make sure that the text that was inside the text box is tagged as `Text`.

> **Note:** MS Word text boxes are automatically exported to PDF format with a ***`Figure`*** tag. We always replace the Figure tag with `Background` and `Text` tags here.

C) Left-click with your mouse, and draw a polygon around any blank line text elements located above the text at the bottom of the page, and click the `Background` button.

> **Note:** This prevents each blank line from being read aloud to the end-user by older screen readers.

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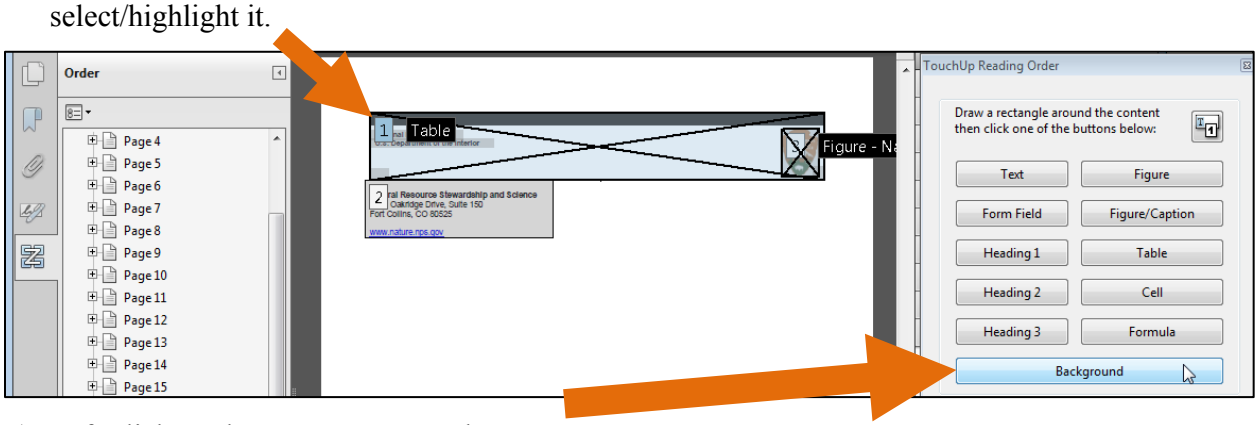
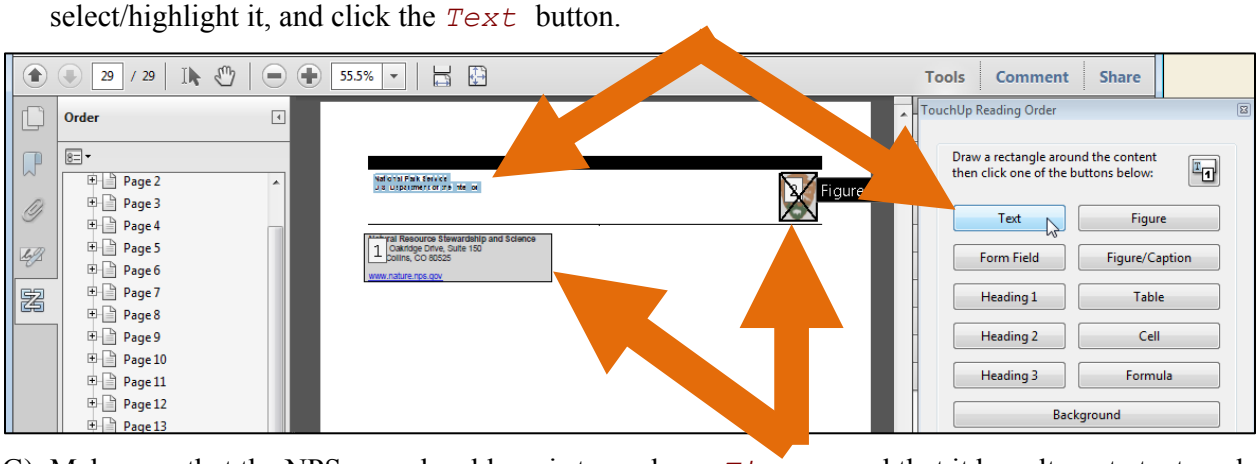
D) On the outside back cover page, left-click on the *Order* number for the page-top banner table to select/highlight it.



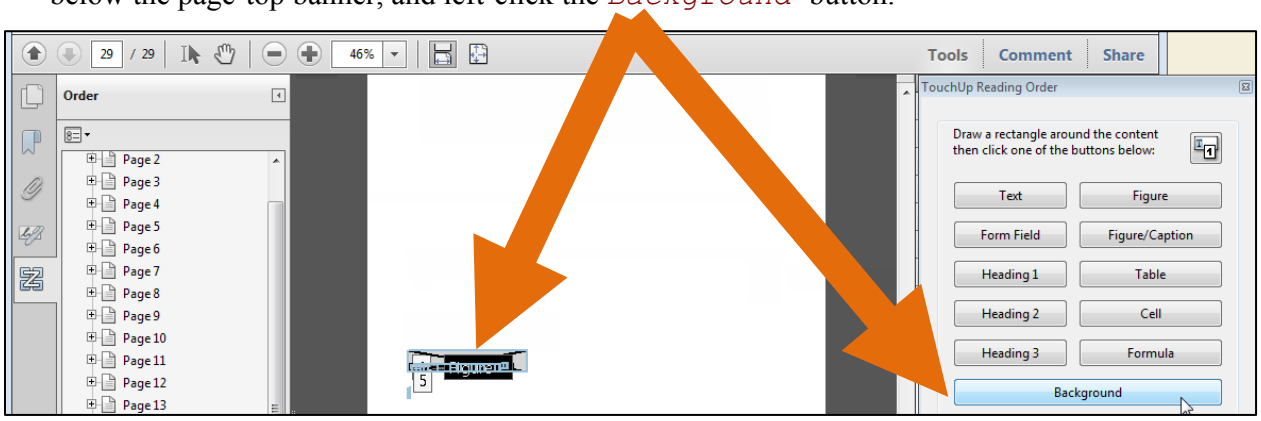
E) Left-click on the `Background` button.

F) Left-click with your mouse, and draw a polygon around any text in the page-top banner to select/highlight it, and click the `Text` button.

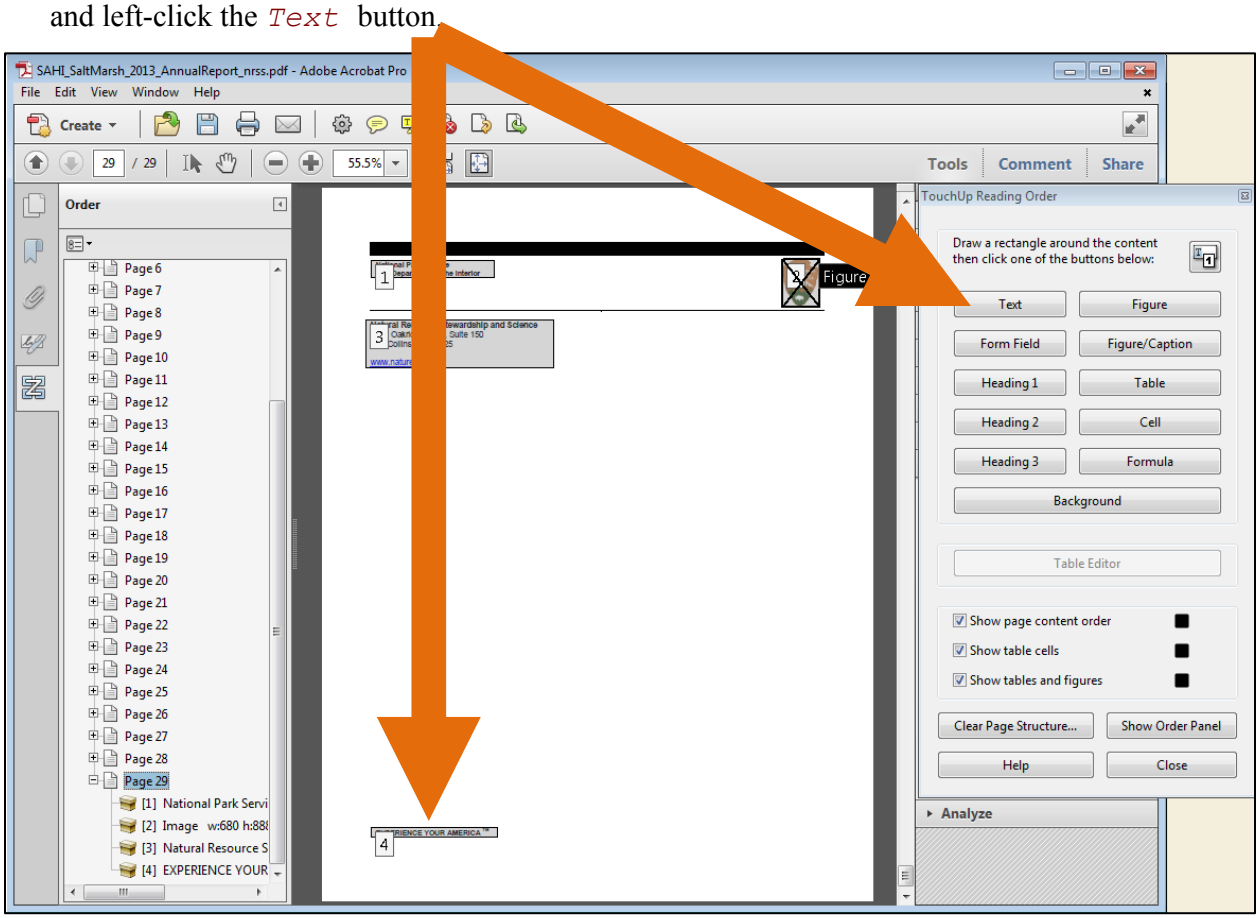


G) Make sure that the NPS arrowhead logo is tagged as a `Figure`, and that it has alternate text, and make sure that the text immediately below the page-top banner is tagged as `Text`.

H) Left-click with your mouse and draw a polygon around everything below the text immediately below the page-top banner, and left-click the `Background` button.



I) Left-click with our mouse and draw a polygon around the phrase " *Experience Your America™*" and left-click the `Text` button.



J) The final page should look something like the example above.

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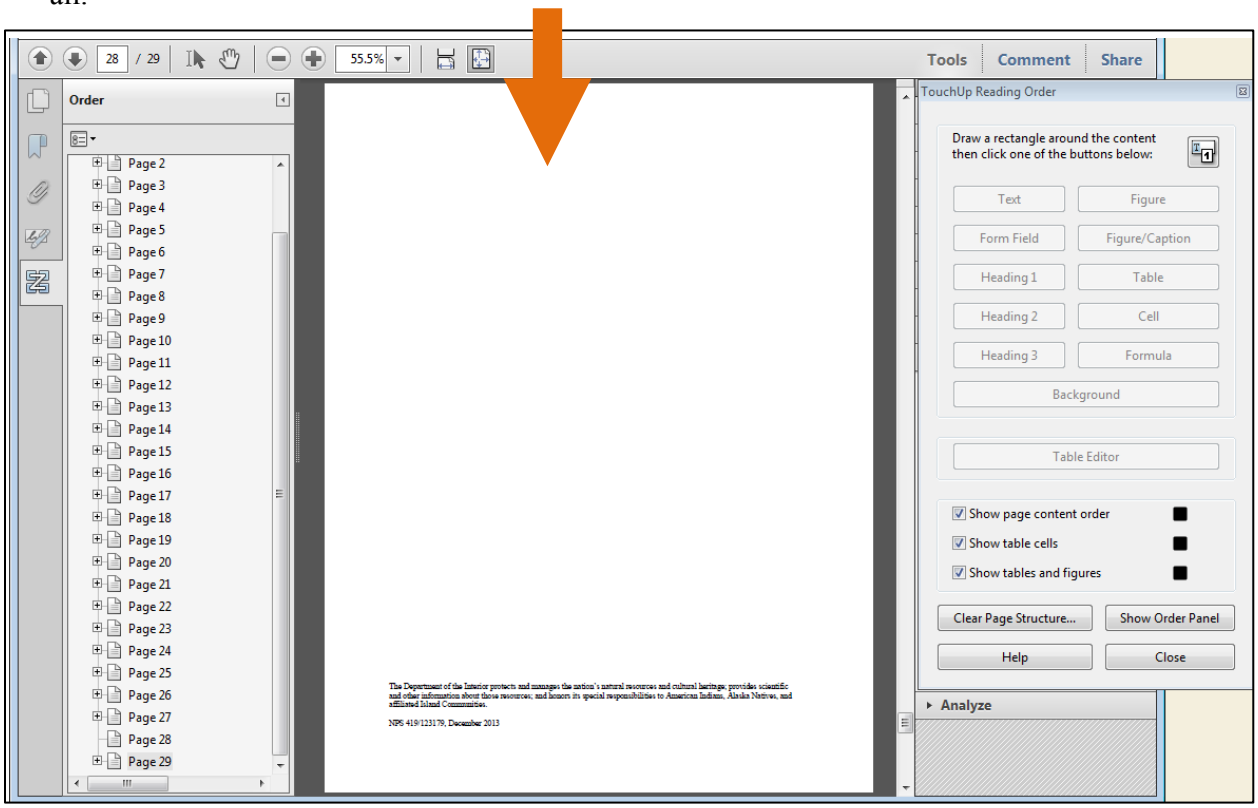
Traditional back cover pages for reports without tags (not generated using the techniques outlined in our current MS Word or Adobe Acrobat templates for NRTR, NRR, and NRDS reports):

A) Viewing the pages with the `TouchUp Reading Order` tools, the pages will have no tags at all.



B) Treat the inside back cover like any other page that has no tags.

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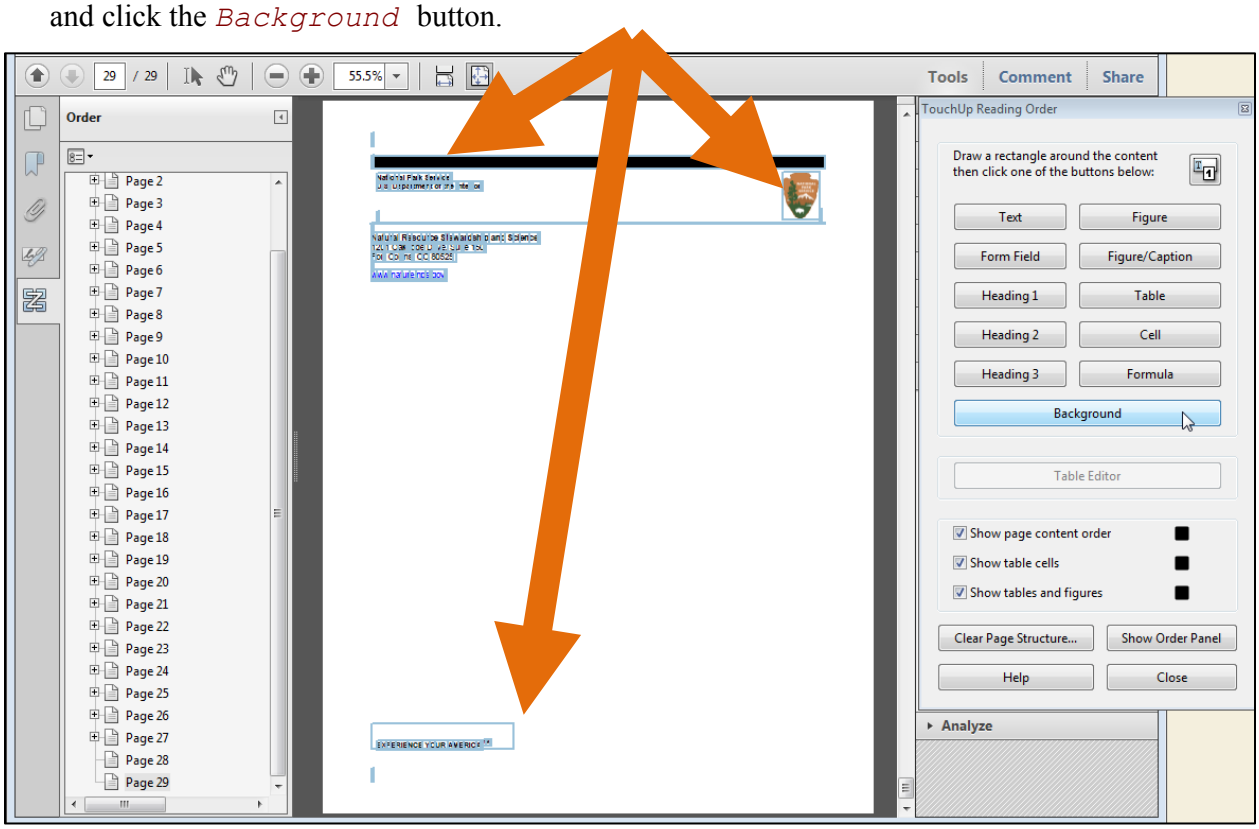
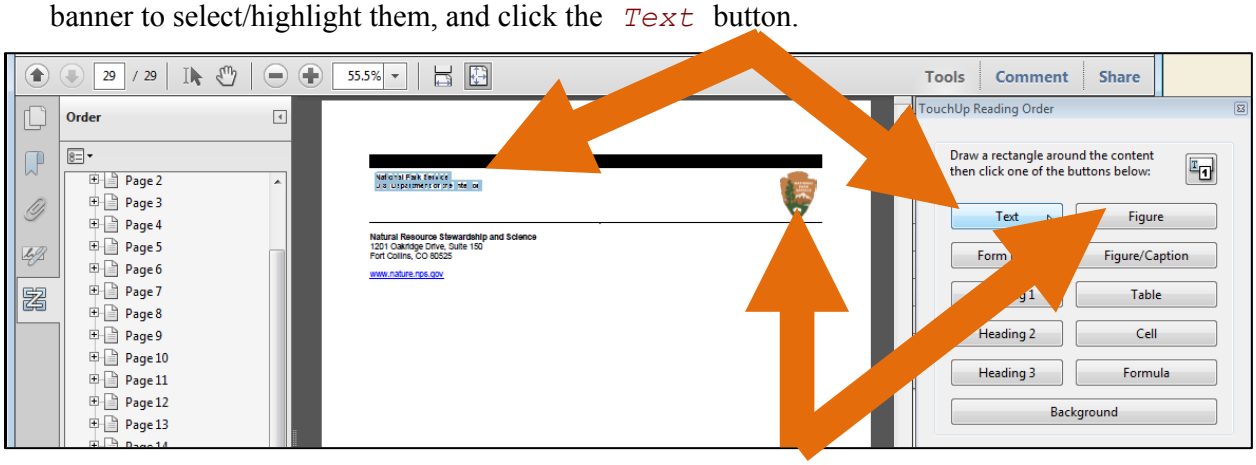
C) For the outside back cover page, left-click and draw a polygon around everything on the page, and click the `Background` button.



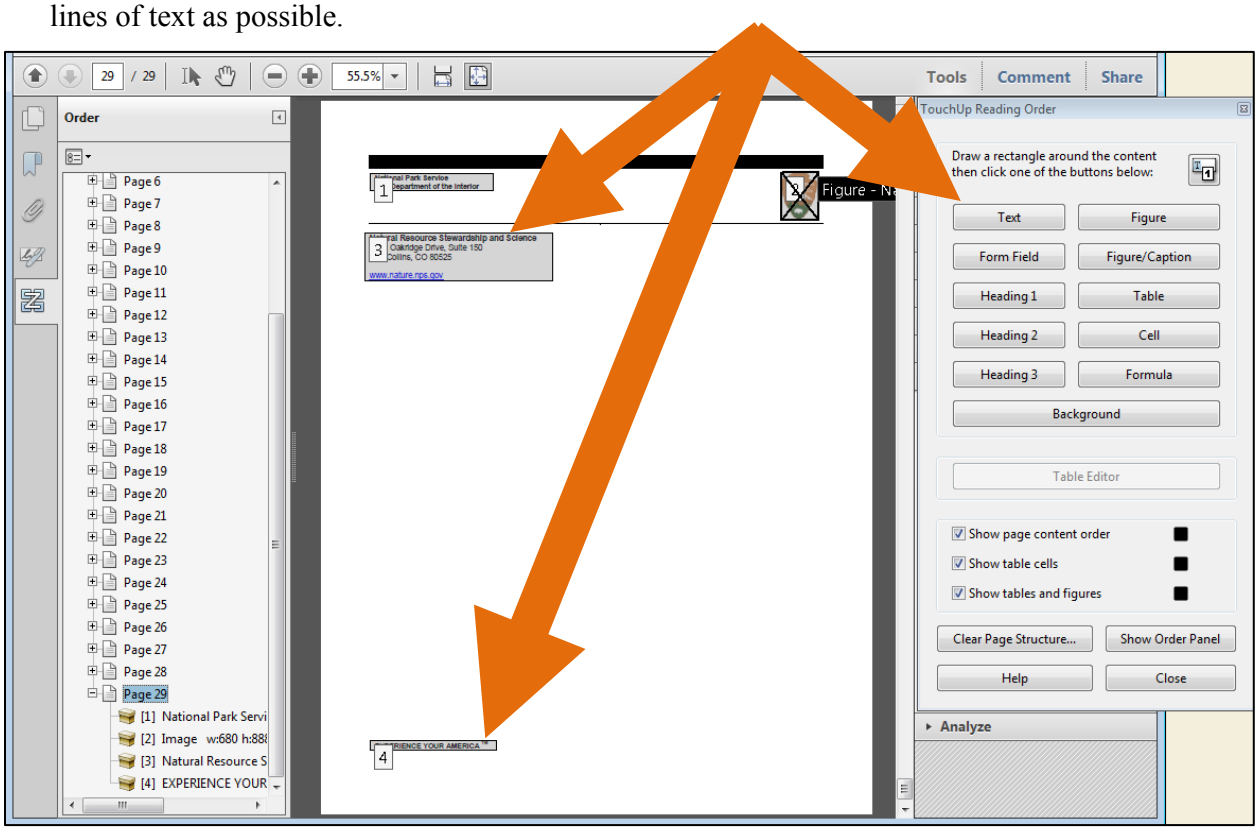
D) Left-click with your mouse, and draw a polygon around all text elements inside the page-top banner to select/highlight them, and click the `Text` button.



E) Left-click with your mouse, and draw a polygon around all text elements inside the page-top banner select/highlight them, and click the `Figure` button.

a) Make sure to add alternate text to the new `Figure` tag (we usually use "*National Park Service Logo*" here).

F) Left-click with your mouse, and draw a polygon around all text elements below the page-top banner to select/highlight them, and click the `Text` button. Make sure to select as few blank lines of text as possible.



G) The final page should look something like the example above.

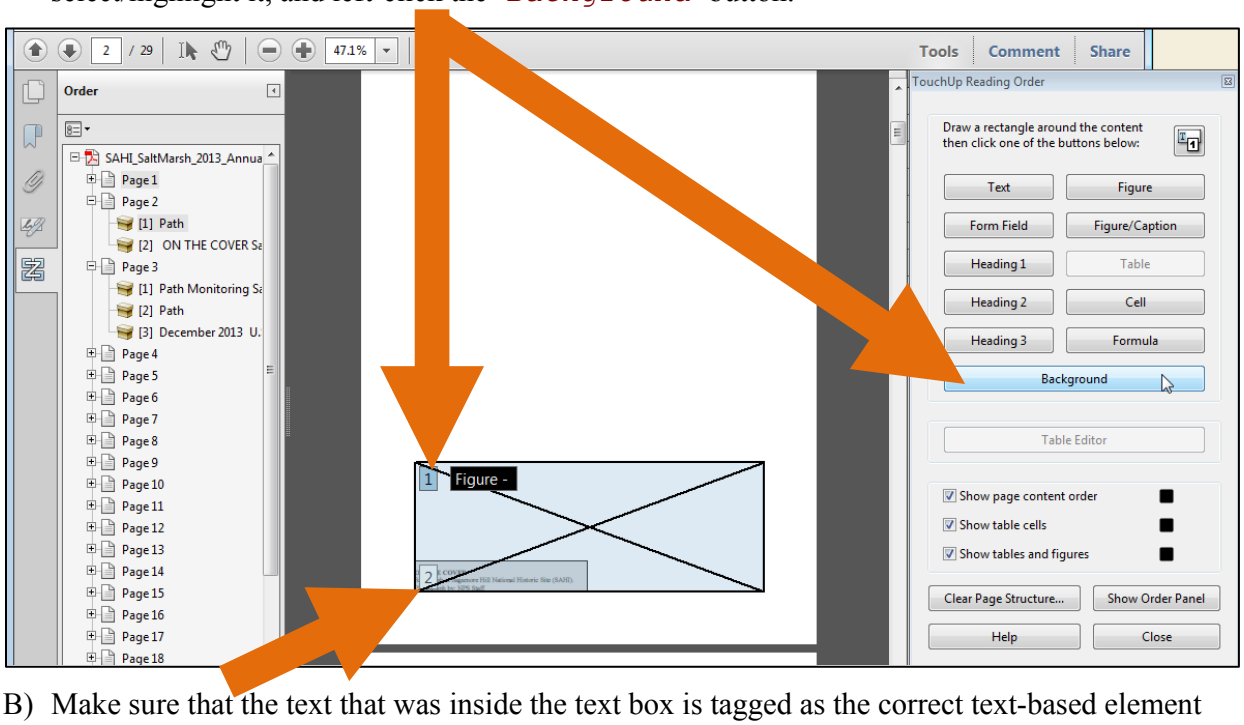
Solutions to Common Tagging Problems

MS Word Text Boxes Are Tagged as `Figure` Elements

MS Word text boxes are automatically exported to PDF format with a `Figure` tag.

<u>If the text box contains text and is not part of a graphic element (figure, flow-chart, etc.):</u>

A) Left-click on the *Order* number for the text box `Figure` at the bottom of the page select/highlight it, and left-click the `Background` button.



B) Make sure that the text that was inside the text box is tagged as the correct text-based element (`Text`, `Heading 1`, `Heading 2`, or `Heading 3`).

<u>If the text box is part of a graphic element like a figure, flow-chart, etc.:</u>

Combine all of the page elements that make-up that graphic element inside a Figure tag.

Text Becomes Invisible While Changing the Page Reading Order

This happens when the text was added to a layout element that has a solid-colored background in either MS Word or Adobe Acrobat (text box, table, etc.). This is a common Adobe Acrobat object layer and tag bug. The fix/work-around is to:

A) Save your PDF file, and replace the page in question with the same page from the backup PDF copy, using the `Tools / Pages / Replace Page` tool option.

B) Use the `Tools / TouchUp Reading Order` tools to re-tag and set the reading order for the rest of the page like normal.

   a) Make sure that all other page elements are in the correct reading order.

C) Left-click with your mouse and draw a polygon around the entire problem part of the page, and click the `Figure` button.

   a) You want to select everything up to the edge of other, already tagged, page elements.

   b) We temporarily tag it as a figure, so that we can change the reading order for the text and the solid-colored background element as a unit.

D) Set the reading order of the new `Figure` element to the correct position on the page.

E) Left-click on the *Order* number for the `Figure` tag, and click the `Background` button.

F) Left-click with your mouse and draw a polygon around the top-most individual line of text, and click the appropriate text tag button (`Text`, `Heading 1`, `Heading 2`, `or Heading 3`).

G) Repeat step *F* for each individual line of text in that area.

   a) Adjacent lines with the same text tag type will automatically combine to be inside the same text attribute tag, but without any of the lines being placed behind the solid-colored background object.

H) Change the reading order of the new tag(s) as required.

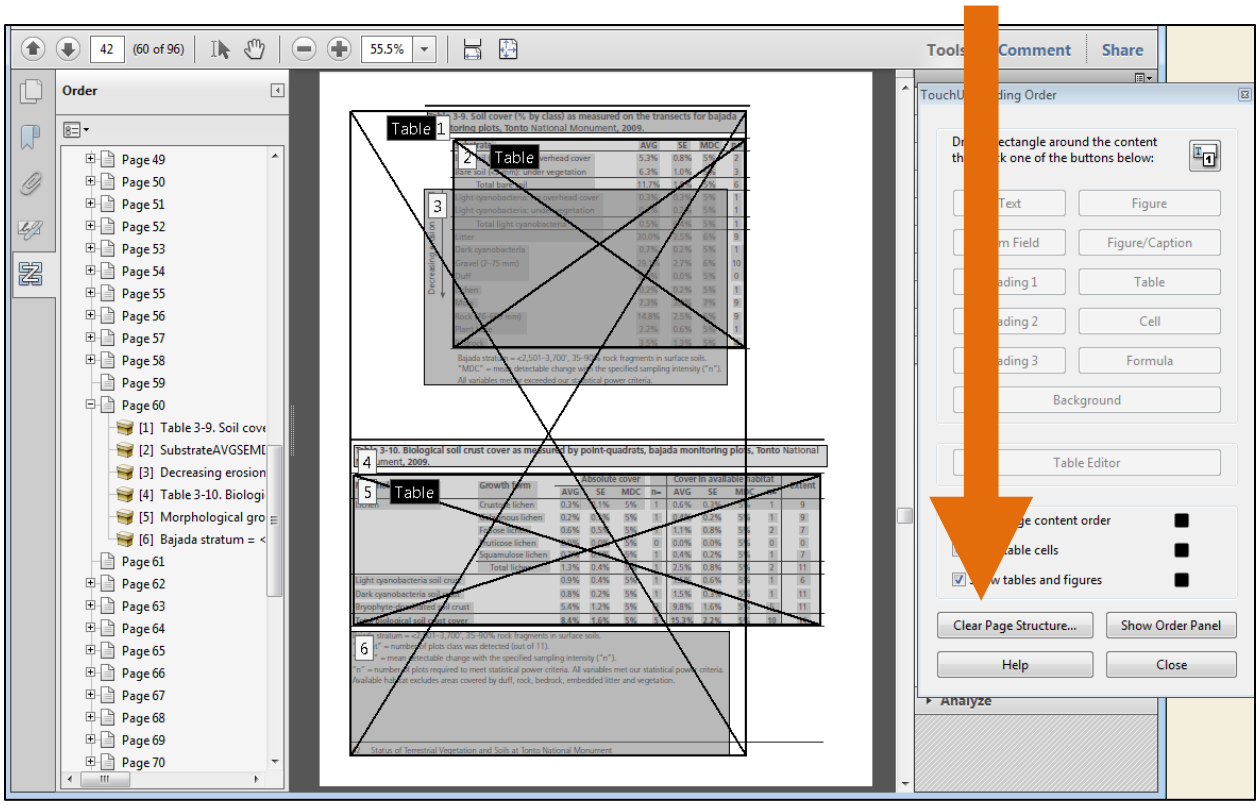
Multiple Page Elements and/or Pages Are Placed Inside a Single `Table` Tag

This is a common Adobe Acrobat tag bug that usually occurs on pages with, or adjacent to pages generated by MS Word with:

- Tables or images that extend beyond the pre-defined page margins.
- Text boxes or graphics that were specifically designed to hide text in page headers or footers ("graphic" element that spans across page margin – usually done to create completely blank pages).
- More complex table layout schemes (multiple rows with cells that span multiple columns, multiple columns with cells that span multiple rows, with vertical or angled text alignment, etc.).

<u>Potential solutions:</u>

A) On the `TouchUp Reading Order` panel, left-click the `Clear Page Structure` button.



Note: the `Clear Page Structure` tool completely removes all tags for two pages at-a-time. After you use this tool, you will need to re-tag both pages.

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B) Left-click with your mouse and draw a polygon around all elements on the entire page, and click and left-click the `Background` button.

C) Tag both pages like you would any other page with no tags.

<u>If the above did not work:</u>

A) Obtain a copy of the final MS Word file from the author.

B) Open the original MS Word, and make sure that the targeted pages were formatted using the basic guidelines provided in our document templates or the MS Word Procedures for Producing Section 508 Accessible PDF Documents. Things you should check and/or update as required:

   a) All tables need to be formatted using the basic techniques found provided in our document templates or the MS Word Procedures for Producing Section 508 Accessible PDF Documents.

   b) All tables and figures should remain within the pre-defined page margins. Re-size tables or outside table margins as needed to make this happen.

   c) There should be no graphics or text boxes used to cover page header or footer text, table cells, etc.

C) Export the newly formatted pages to a stand-alone PDF file.

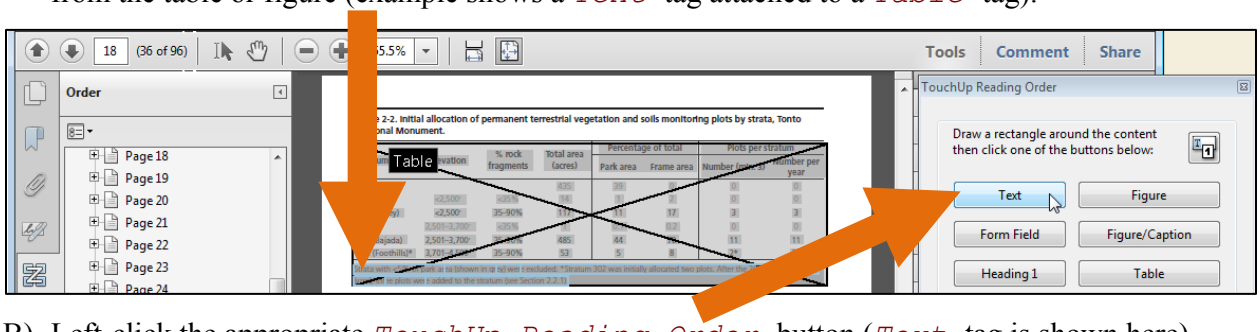
D) Edit and update the tags in the new PDF file like normal.

E) Once the pages are tagged correctly, in the main PDF document, replace the "bad" pages with the new ones using the `Tools / Pages / Replace Page` menu option.

Text or Other Page Element Becomes Attached to an Adjacent `Table` or `Figure` Tag

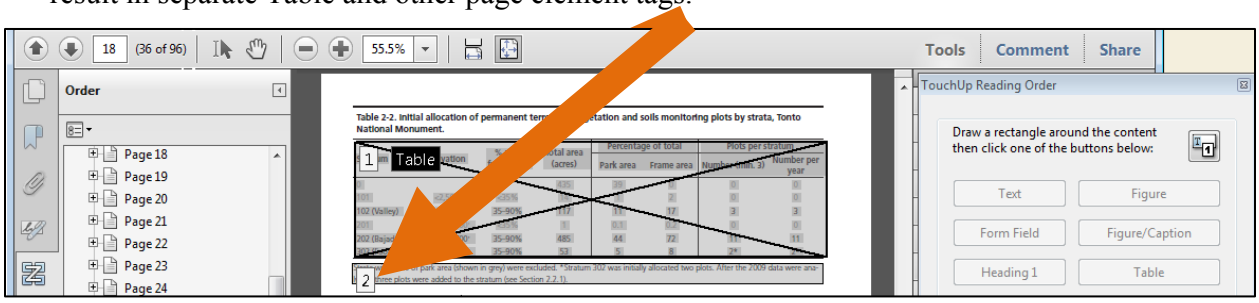
This is a common Adobe Acrobat tag bug that occurs while you are manually tagging page lements located next to tables and figures. The fix is easy.

A) Left-click with your mouse, and draw a polygon around the page element that you want to detach from the table or figure (example shows a `Text` tag attached to a `Table` tag).



B) Left-click the appropriate `TouchUp Reading Order` button (`Text` tag is shown here).

C) You may need to repeat steps A and B a couple of times to it to work right. The end result should result in separate Table and other page element tags.



If the above did not work, see the section of this document: *Multiple Page Elements and/or Pages Are Placed Inside a Single Table Tag*.

References

The guidance and procedures outlined in this document are a compilation of testing, modifying, and summarizing the information and procedures provided from the following sources.

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