



# **Pennsylvania Department of Health**

## **PA-NEDSS**

### **Technical Bulletin**

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## Version History

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1.0	10/10/2002	Harley Young	Final	Initial Creation
2.0	02/24/2004	Implementation Team	Final	Updated for PA-NEDSS Release 5.0
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13.0	09/08/2008	Implementation Team	Final	Updated to reflect Release 13 enhancements.
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15.4	6/19/2018	Staff	Final	Password requirements change

## Document Updates for Version 15.4

Section	Notes
2.2	Password requirements change


## 1. Executive Summary

The purpose of this document is to provide basic technical information and hints for troubleshooting the implementation of the Pennsylvania National Electronic Disease Surveillance System (PA-NEDSS).

## 2. Security

PA-NEDSS is a highly secure web application that employs multiple layers of industry best practices for security. In order to achieve this high security level, the PA-NEDSS team regularly reviews current trends in Internet threats and employs processes and technology to counter these threats. Such security practices include enforcing strong passwords, periodic password changes, secure data transmission, and industry standard user authentication methods. Additionally, the Commonwealth uses intrusion detection and prevention systems, multi-level firewalls, and user security training.

### 2.1. Secure Sign-In: SSL and PA-NEDSS Security

Secure Sockets Layer (SSL) is a communications protocol for transmitting private information over the Internet between the client and the server. SSL works by using two keys to encrypt data that is transmitted over the connection. Internet Explorer supports SSL and displays a **Lock** icon  located to the right of the Address bar when the web page is protected by an SSL connection. Uniform Resource Locators (URLs) that require an SSL connection start with Hypertext Transfer Protocol Secure (https) instead of Hypertext Transfer Protocol (http).

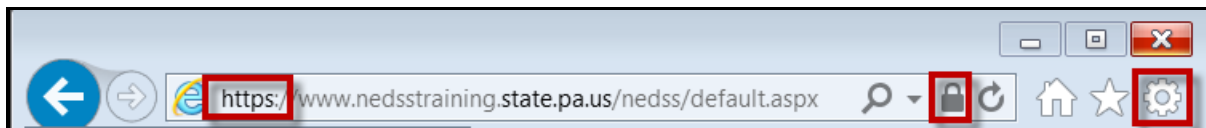


Figure 2.1-1 Secured Web Page

All of the information exchanged with PA-NEDSS (including the user name and password during the logon process) is encrypted before being sent over the Internet. No one can read or access the data that is being transmitted.

After the user signs in, PA-NEDSS keeps track of who the user is by using a computer-generated key rather than the PA-NEDSS user name. This key, a Globally Unique Identifier (GUID), changes each time the user visits PA-NEDSS, which makes it very difficult for anyone else to pose as the user.

### 2.2. Passwords and User Names

Passwords expire every 60 days. The system notifies the user at each logon of an impending password expiration beginning 25 days prior to the expiration date. At 60 days, the user will be redirected to the Password Change screen where the user must change the password before access to PA-NEDSS is granted. When changing the password, users are encouraged to also change the password hint.

If the user has forgotten his/her password, he/she can access the hint which is located by clicking the "Forgot your password?" link on the PA-NEDSS Home Page. The hint will be delivered to the e-mail address on file. The actual password will not be sent via e-mail. After reviewing the hint, if the user still cannot recall his/her password, contact the PA-NEDSS Help Desk by calling 717-783-9171 to have the password reset.

Passwords must be at least twelve (12) characters long, contain at least one number (0-9), and at least one uppercase and one lowercase letter (A-Z, a-z), and no spaces. It cannot contain the User Name, the user's first or last name, or match any of the previous six passwords. It should be difficult for others to guess! The password is also case sensitive.

PA-NEDSS accounts are locked after three failed logon attempts. Locked accounts are unlocked automatically after twelve hours. Alternatively, users may call the PA-NEDSS Help Desk for assistance with unlocking the account.

### **2.3. Security Question and Answer**

Each PA-NEDSS user must answer a security question in order to use the application. The security question and answer will assist the help desk in positively identifying users who request password resets, other user account specific information or any patient specific information. Once the security question and answer have been set, they can be edited at any time via the Update User Profile link on the Administration screen or the Edit User link in the upper right corner of any PA-NEDSS screen.

### **2.4. Browser Security Setting Requirements**

In order to access PA-NEDSS, users may need to change the browser's (Internet Explorer) security settings to make sure they are at the appropriate level. See Section 3.2, Recommended Browser Settings to verify and/or change your browser settings.

### **2.5. About Cookies**

The cookies used by PA-NEDSS are not persistent. In other words, files are not stored on the user's computer. Cookies exist in the memory of the Web browser and as soon as the browser is closed, PA-NEDSS cookies are discarded. Moreover, the information stored in the cookie is not confidential; it is merely a unique number that allows the Web server to keep track of the current session, which ensures that accurate data is received.

### 3. System Requirements

#### 3.1. Recommended System Requirements

The following list of system requirements is recommended, but not required, in order to access PA-NEDSS:

##### Internet Connection

- T1 or greater broadband Internet connection

##### Computer Hardware

- 4 GB of Ram
- 500 MB of hard drive space
- For optimal viewing one of two settings should be used:
  - 1366x768 resolution at 100% browser zoom only (this resolution is typical for many laptops); or,
  - 1920x1080 resolution at 100-150% browser zoom (zooming capability at this resolution has been restored)



##### Computer Software

- Microsoft Windows 7
- Microsoft Internet Explorer 10.0 or 11.0
- Support for session cookies (non-persistent)
- Support for JavaScript

#### 3.2. Recommended Browser Settings

The following browser settings should also be set on each machine used to access PA-NEDSS. Please keep in mind that there are additional browser settings that may need to be set depending on any additional software that may be running on the machine. To view all the pages of the PA-NEDSS application, browsers must support JavaScript. If the following browser settings are set correctly and you are encountering problems with PA-NEDSS, please contact the PA-NEDSS Help Desk at 717-783-9171 for assistance.

##### 3.2.1. The Security Tab

Step	Action
1.	To verify and/or change settings, select the <b>Tools</b>  icon then select <b>Internet Options</b> from the drop down menu (See Figure 2.1-1 above). Select the <b>Security</b> tab.
2.	Click the <b>Trusted Sites</b>  icon (Figure 3.2.1-1) to display the <b>Trusted Site</b> section. Click the <b>Sites</b> button to display the <b>Trusted Sites</b> pop-up window (Figure 3.2.1-2) and type <a href="https://www.nedss.state.pa.us">https://www.nedss.state.pa.us</a> in the <b>Add this website to the zone</b> box as a <b>Trusted Site</b> , click <b>Add</b> . The



web site address will now be displayed in the **Websites** window. Click **Close** to re-display the Internet Options window.

**Note:** PA-ELR on-boarding users should also add <https://www.nedsstest.state.pa.us> as a **Trusted Site**.

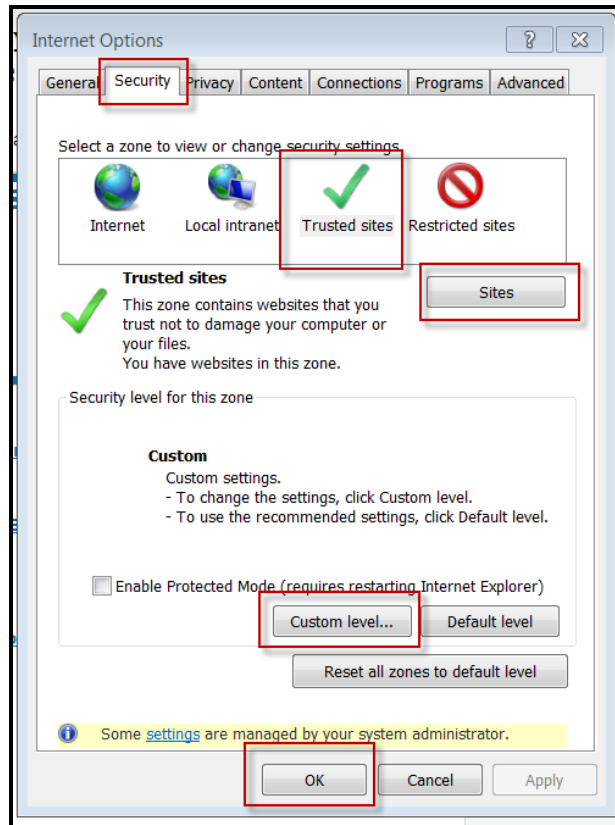


Figure 3.2.1-1: Internet Options

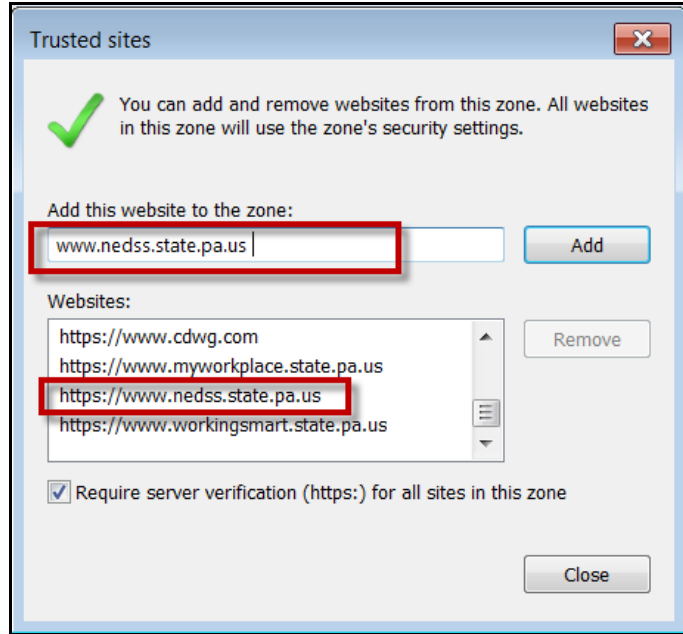


Figure 3.2.1-2: Trusted Sites

Step	Action
3.	Next, verify that the security level for the <b>Trusted Sites</b> zone is set to low. Click the <b>Custom Level</b> button (Figure 3.2.1-1) to display the <b>Security Settings – Trusted Sites Zone</b> pop-up window (Figure 3.2.1-3). At the <b>Reset Custom Settings</b> section, if not set to <b>Low</b> , select <b>Low</b> from the <b>Reset to</b> drop-down menu (Figure 3.2.1-3) and click the <b>Reset</b> button.

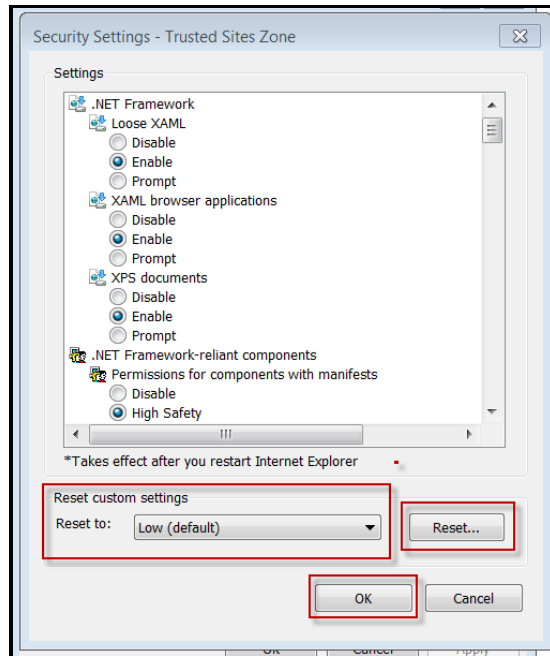
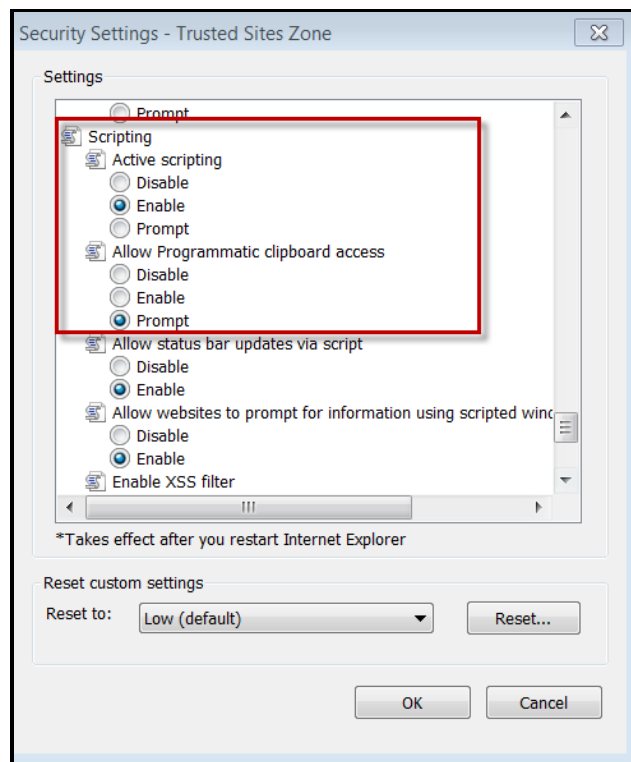


Figure 3.2.1-3: Security Settings

Step	Action
4.	<p>At the <b>Security Settings – Trusted Sites Zone</b> window (Figure 3.2.1-3), set the following key security settings related to scripting. Scroll down to the Scripting section and set the following:</p> <ul style="list-style-type: none"> <li>Active scripting set as <b>Enable</b>.</li> <li>Allow Programmatic clipboard access set as <b>Prompt</b>.</li> <li>Scripting of Java applets set as <b>Enable</b>.</li> </ul> <p>Scroll down to the Miscellaneous section and set the following:</p> <ul style="list-style-type: none"> <li>Display mixed content set as <b>Disable</b>.</li> </ul> <p>Click <b>Ok</b> to close the window (Figure 3.2.1-3) and return to the Internet Options window.</p> <p>Click <b>Ok</b> to close the Internet Options window (Figure 3.2.1-1) and return to the Internet Explorer window.</p> <p><b>Note:</b> This will change the settings for all <b>Trusted Sites</b>.</p>



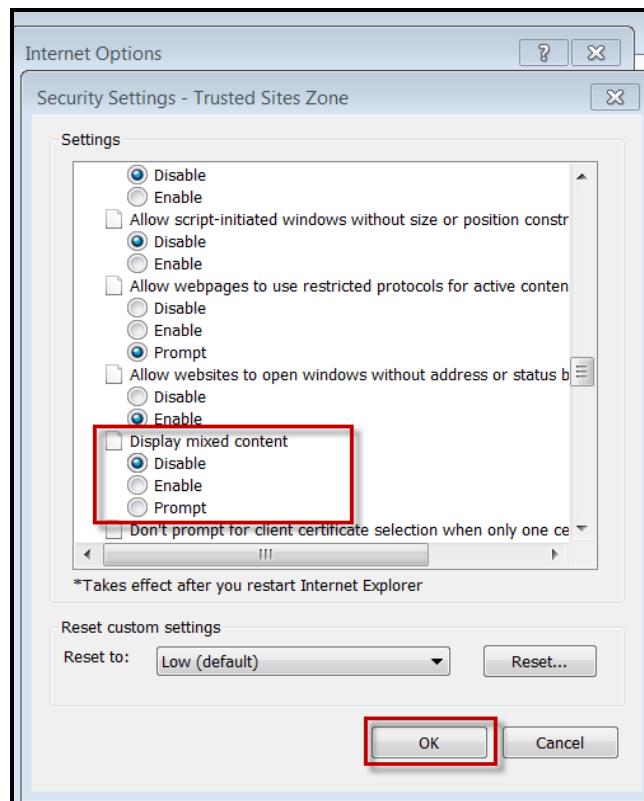
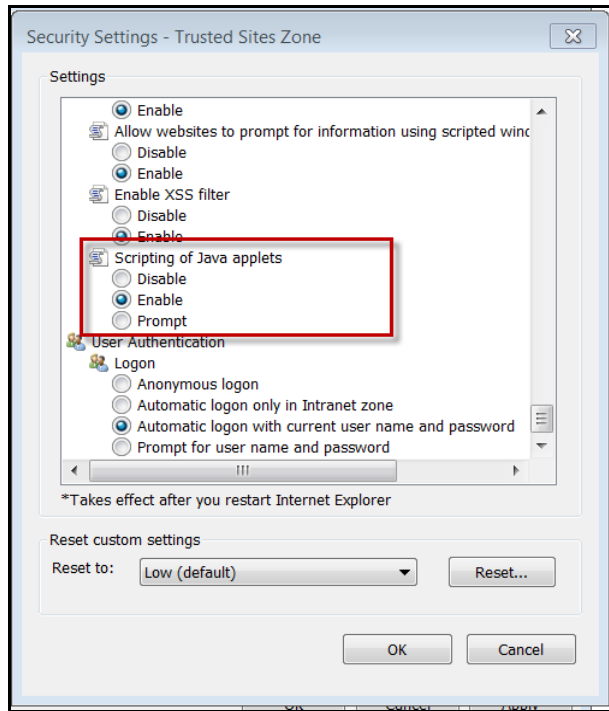



Figure 3.2.1-4: Security Settings

3.2.2. The Advanced Tab

Step	Action
1.	To verify and/or change settings, select the <b>Tools</b>  icon > select <b>Internet Options</b> from the drop down menu (See Figure 2.1-1 above) and click the <b>Advanced</b> tab.
2.	Scroll down to the HTTP 1.1 settings section and place a checkmark <input checked="" type="checkbox"/> next to the following (Figure 3.2.2-1): Use HTTP 1.1

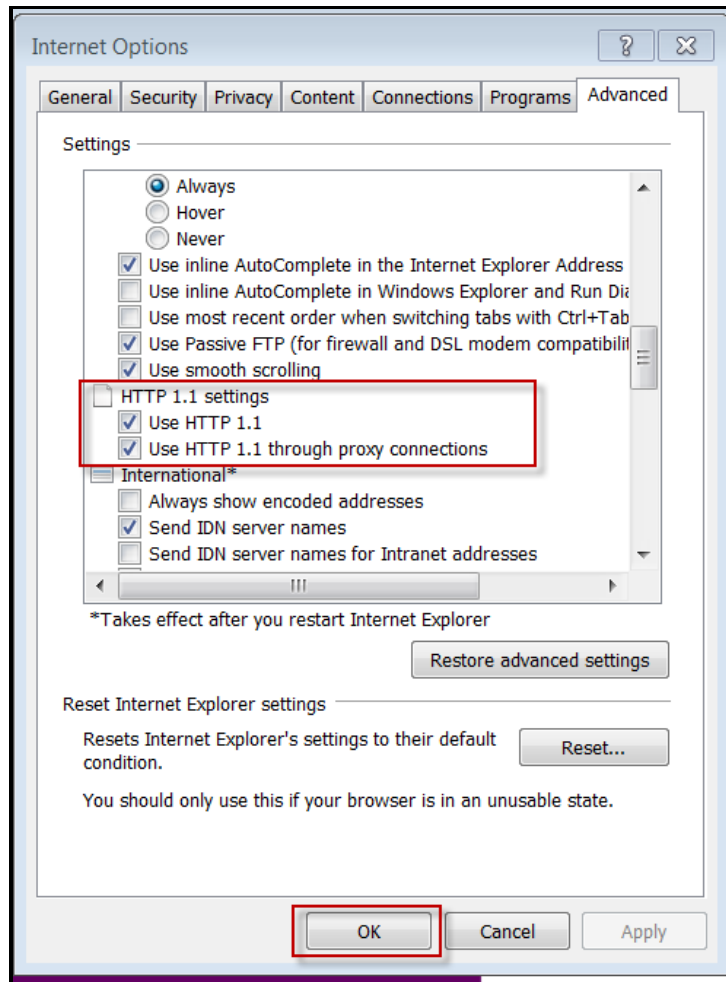


Figure 3.2.2-1: HTTP Section

Step	Action
3.	<p>Next, scroll down to the <b>Security</b> section and verify the following (Figure 3.3.2-2):</p> <ul style="list-style-type: none"> <li>• There should be no checkmark <input type="checkbox"/> next to <b>Do not save encrypted pages to disk</b></li> <li>• Place a checkmark <input checked="" type="checkbox"/> next to <b>Use SSL 3.0</b></li> </ul> <p>Click <b>Ok</b> to close the Internet Options window and return to the Internet Explorer window.</p>

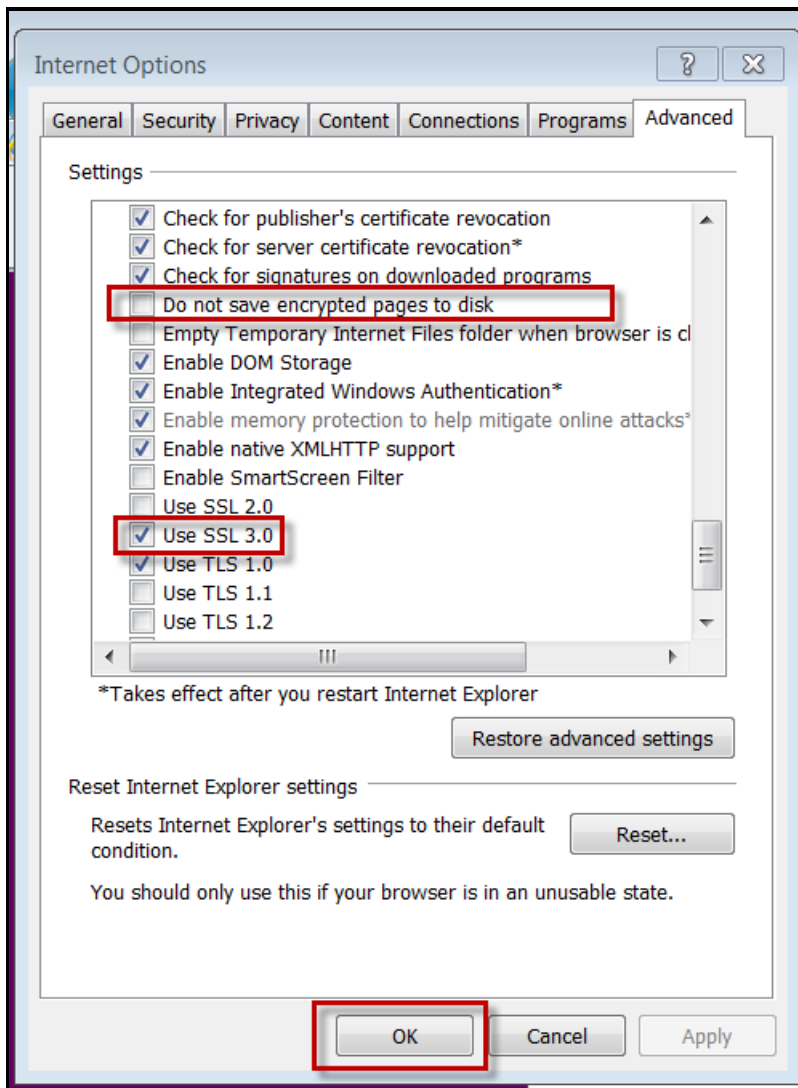

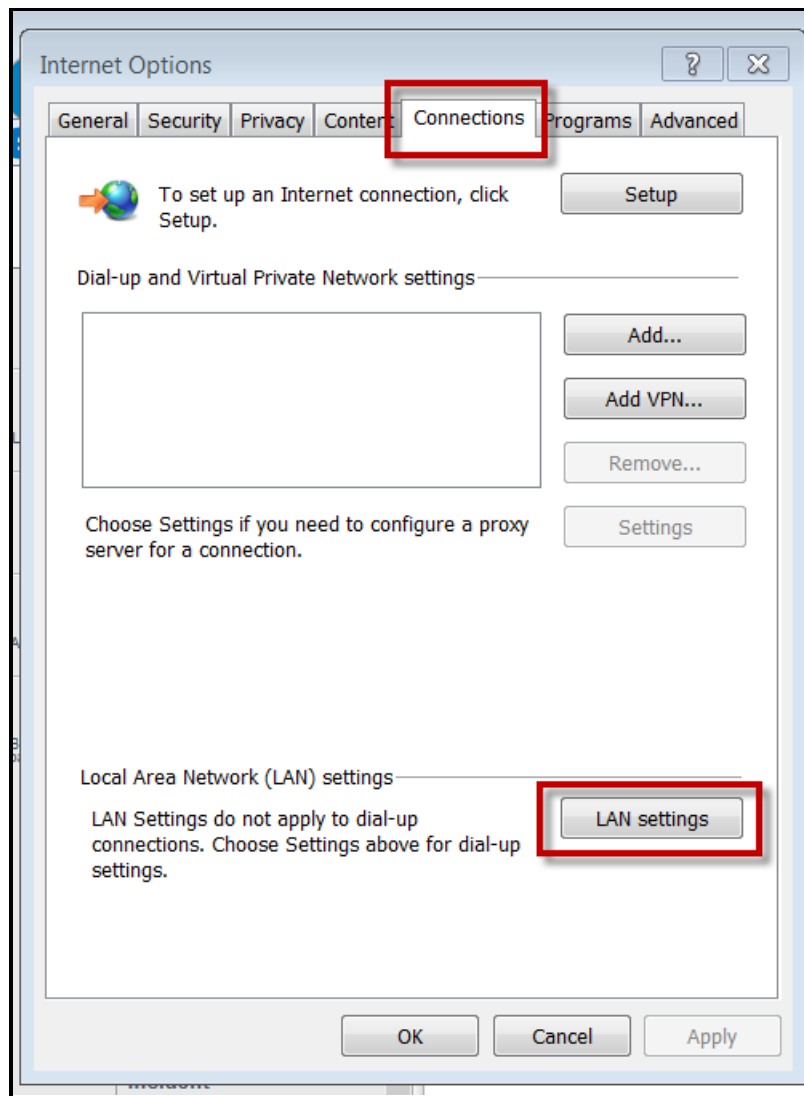


Figure 3.2.2-2: Security Section

3.2.3. The Connections Tab

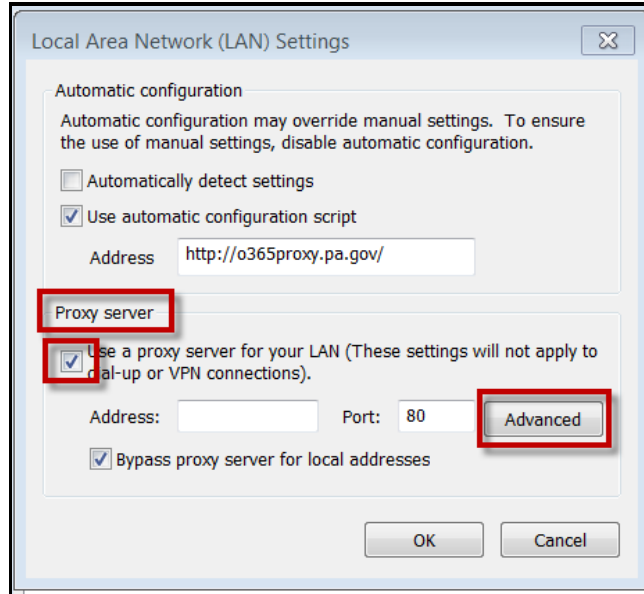
The following browser setting may not need to be set on each machine used to access PA-NEDSS.

Step	Action
1.	To verify and/or change settings, select the <b>Tools</b>  icon > select <b>Internet Options</b> from the drop down menu (See Figure 2.1-1 above) and click the <b>Connections</b> tab.
2.	Select the <b>LAN settings</b> button



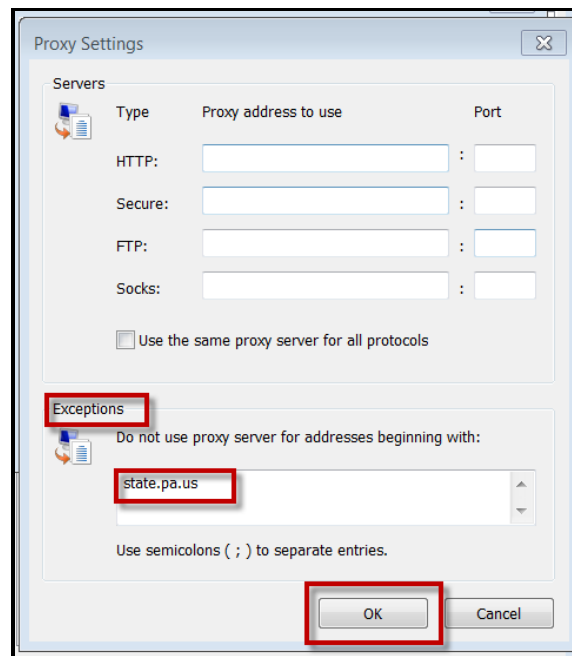
3.2.3-1: Connections Tab

Step	Action
3.	Under the <b>Proxy Server</b> section, if not already selected, select the box for <b>Use a proxy server for your LAN</b> . Then select the <b>Advanced</b> button.



3.2.3-2: Select Advanced Tab

Step	Action
4.	Enter <b>state.pa.us</b> under <b>Exceptions</b> and select the <b>OK</b> button.




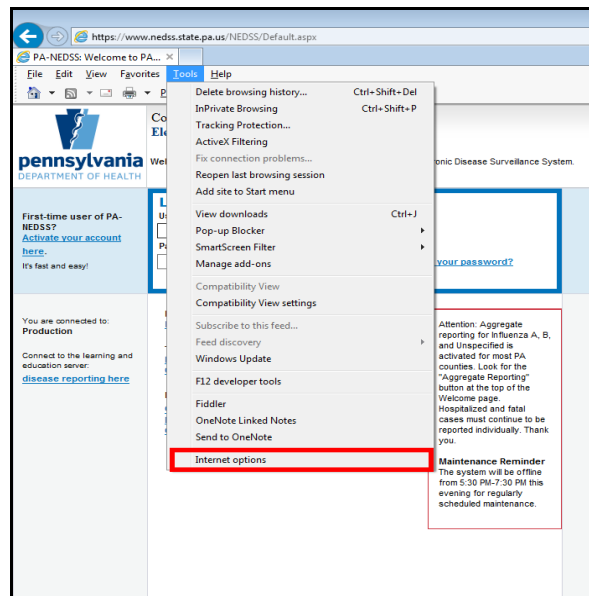
3.2.3-3: Exceptions List



3.2.4. Clearing Internet Explorer Cache

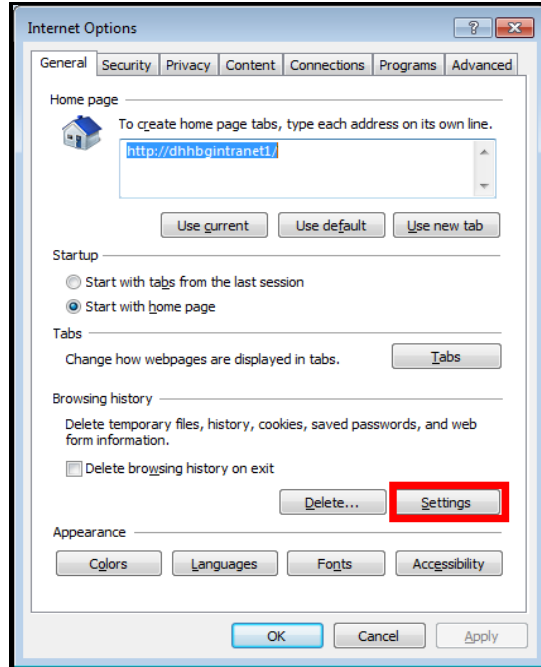
If you need to clear your Internet Explorer cache, please follow these steps:  
 Before performing these steps, log out of any websites and close any open browsers.

Step	Action
1.	Select the <b>Tools</b>  icon > select <b>Internet Options</b> from the drop down menu (See Figure 2.1-1 above)



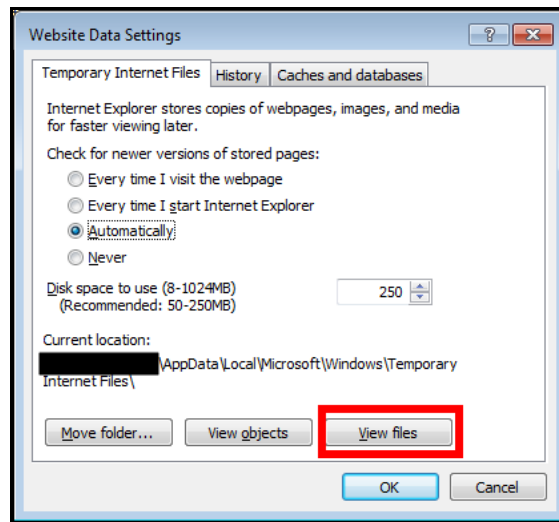
3.2.4-1 Tools Drop Down Menu

Step	Action
2.	Select the <b>Settings</b> button under <b>Browsing History</b> .



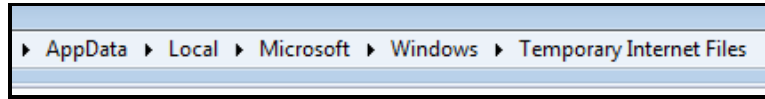
3.2.4-2 Settings button under Browsing History

Step	Action
3.	Click on the View Files button



3.2.4-3 View Files Button

Step	Action
4.	A Windows Explorer window will open with any and all temporary files such as cookies, scripts, and images that your Internet Explorer browser has accumulated up to that point. The address bar at the top will look something like this:




3.2.4-4 Windows Explorer Window

Step	Action
5.	Select all items or press Ctrl+A and delete them all.

3.2.5. *Compatibility View*

The PA-NEDSS website **must** be listed as an allowed site in your **Compatibility View Settings** to render pages correctly.

Step	Action
1.	From <b>Internet Explorer</b> , select the <b>Tools</b>  icon

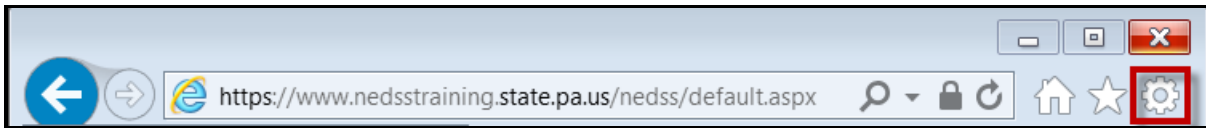


Figure 3.2.5-1: Internet Explorer Tools Icon

Step	Action
2.	From the <b>Tools</b> drop down menu select <b>Compatibility View settings</b> .

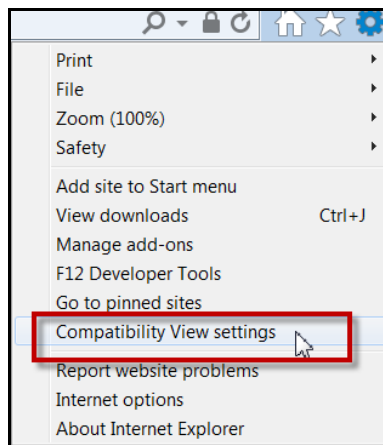


Figure 3.2.5-2: Tools Drop Down Menu

Step	Action
3.	Enter the NEDSS website, <a href="http://www.nedss.state.pa.us">www.nedss.state.pa.us</a> , in the <b>Add this website:</b> section then select <b>Add</b> . The website will be shortened to state.pa.us.

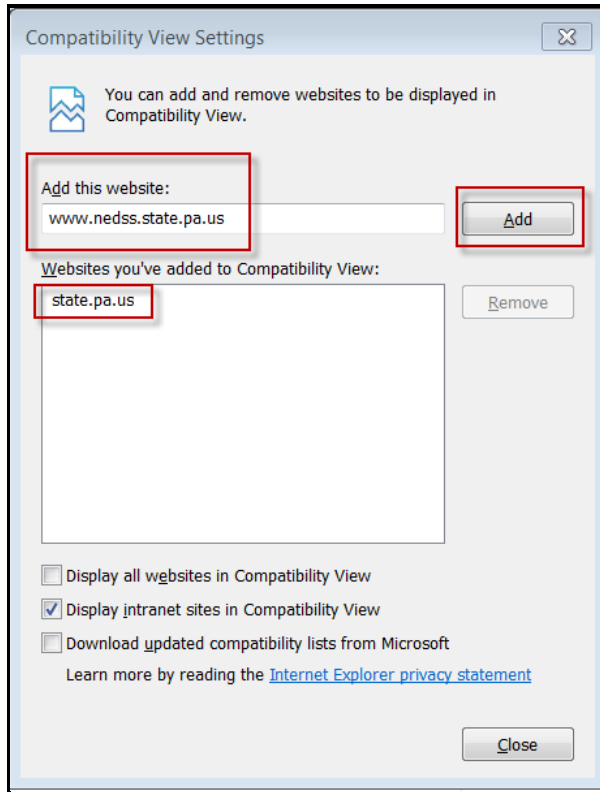



Figure 3.2.5-3: Compatibility View Settings

### 3.3. Recommended Pop-Up Settings

The steps outlined below explain how to change the pop-up blocker settings in Internet Explorer 11. Symptoms that may indicate changes to the settings should be applied are as follows: a page or screen will not open when using the site, the page may appear to freeze when a pop-up window should open or Internet Explorer closes when you try to log onto PA-NEDSS. Due to restrictions enforced on some networks or machines, a user may need to contact their local desktop support team to obtain further assistance.

Step	Action
1.	Select the <b>Tools</b>  icon (Figure 2.1-1 above) from Internet Explorer to display the <b>Tools</b> drop down menu. Select <b>Internet Options</b> .

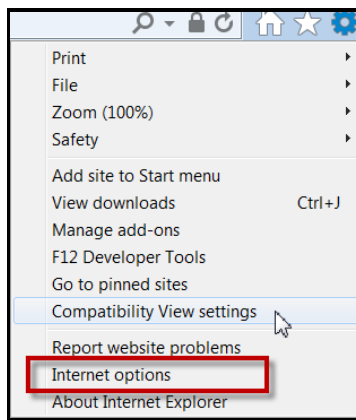


Figure 3.3-1: Tools Drop Down Menu

Step	Action
2.	Select the <b>Privacy</b> tab. Then select the <b>Settings</b> button under the <b>Pop-Up Blocker</b> section (Figure 3.3-2).

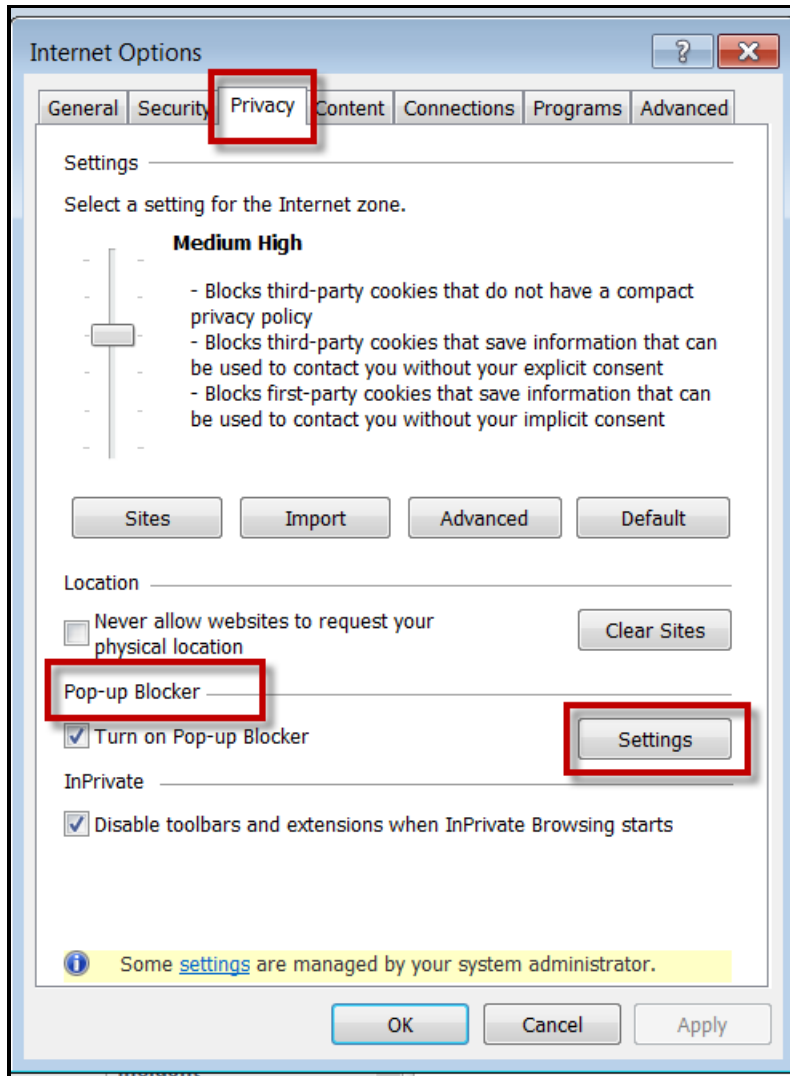


Figure 3.3-2: Select Pop-up blocker

Step	Action
3.	<p>Type <b>www.nedss.state.pa.us</b> in the <b>Address of website to allow</b> box. Click <b>Add</b> (Figure 3.3-3).</p> <p>Type <b>*.state.pa.us</b> in the <b>Address of website to allow</b> box. Click the <b>Add</b> button (Figure 3.3-3). Both sites will be displayed in the Allowed sites section.</p> <p>Deselect (uncheck) Show Notification bar when a pop-up is blocked. Selected blocking level should be set to Low: Allow popups from secure sites.</p> <p>Click the <b>Close</b> button to close the <b>Pop-up Blocker Settings</b> window and return to the Internet Explorer window.</p> <p><b>Note:</b> PA-ELR on-boarding users should also type <a href="https://www.nedsstest.state.pa.us">https://www.nedsstest.state.pa.us</a> in the <b>Address of website to allow</b> box and click <b>Add</b>.</p>

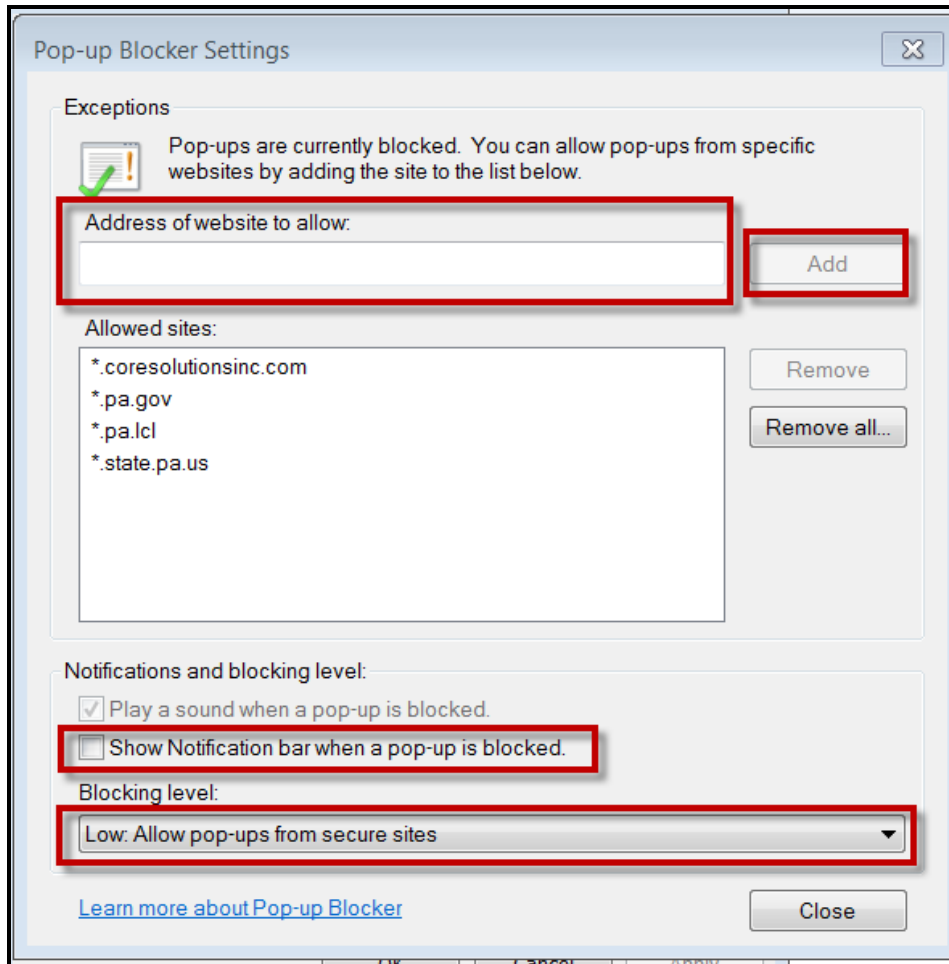


Figure 3.3-3: Add URL's as Allowed



### 3.4. Settings to display buttons in NEDSS on Low Resolution Screens

For optimal viewing one of two settings should be used:

- o 1366x768 resolution at 100% browser zoom only (this resolution is typical for many laptops); or,
- o 1920x1080 resolution at 100-150% browser zoom

CHECK YOUR RESOLUTION: If your resolution is 800x600 or 1076x768, please adjust the settings as described below:

Step	Action
1.	Right click anywhere on your desktop. From the menu that appears, select <b>Screen Resolution</b> . On the pop-up window, note your screen resolution.

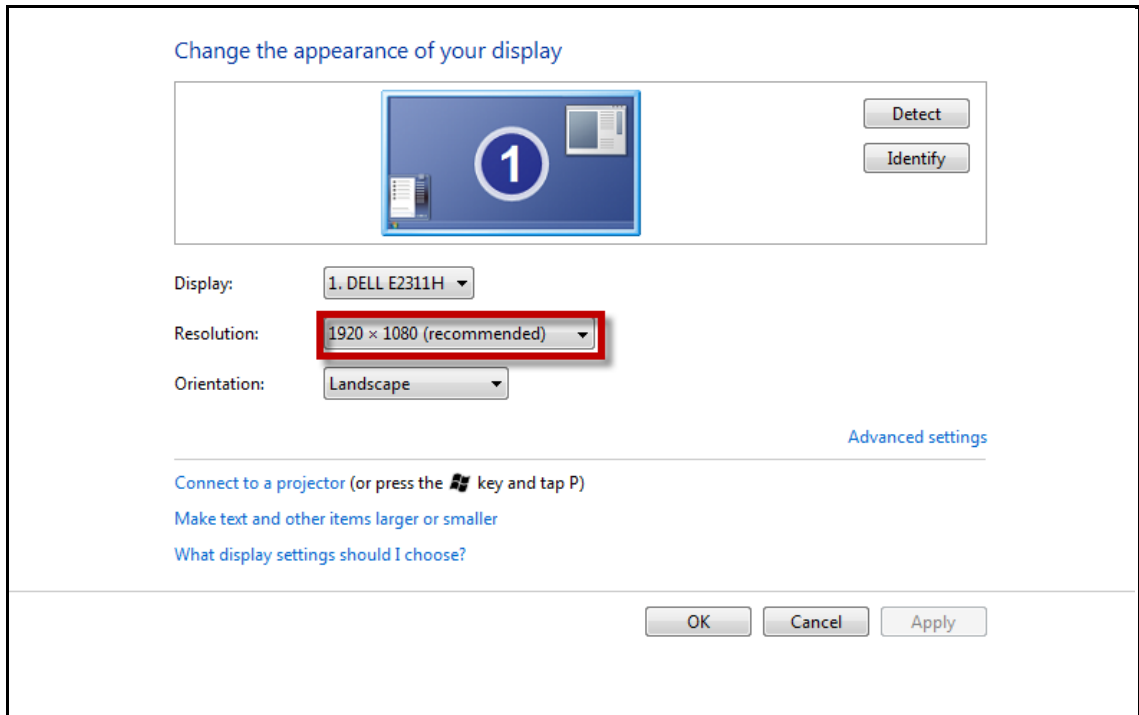


Figure 3.4-1: Current Screen Resolution

**Internet Explorer Adjustments**

Step	Action
1.	In Internet Explorer, select <b>View</b> . From the drop down menu, select <b>Text Size</b> . Select <b>Smallest</b> as your text size.

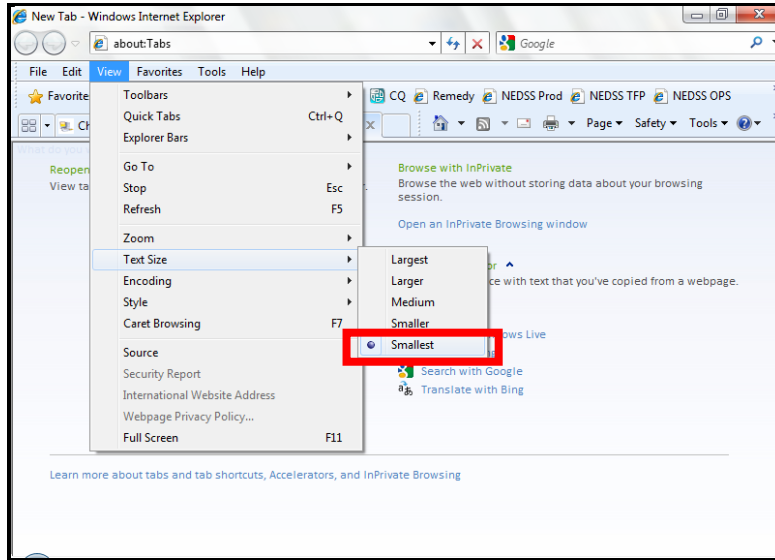



Figure 3.4-2: Internet Explorer Text Size

Step	Action
2.	Select the <b>Tools</b>  icon (Figure 3.2.3-1) from Internet Explorer to display the <b>Tools</b> drop down menu and select <b>Internet Options</b> .

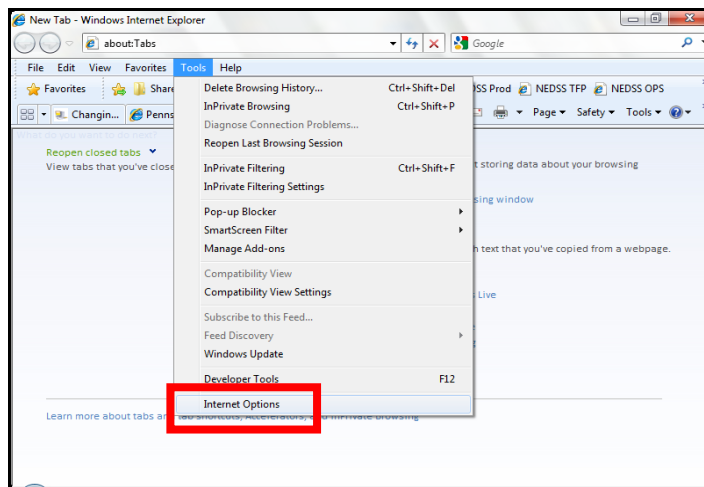


Figure 3.4-3: Tools Drop Down Menu

Step	Action
3.	Select <b>Fonts</b> .

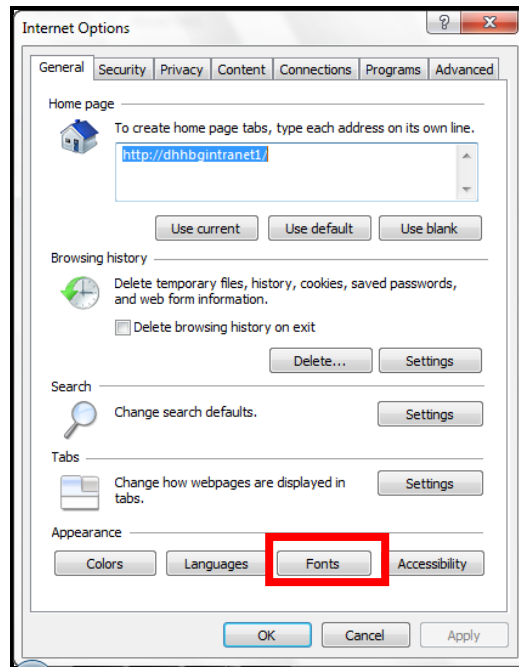


Figure 3.4-4: Select Fonts

Step	Action
4.	In the <b>Fonts</b> window, select a small font for both the <b>Webpage font</b> and the <b>Plain text font</b> (Calibri and Simplified Arabic Fixed seem to work best) and select <b>OK</b> .

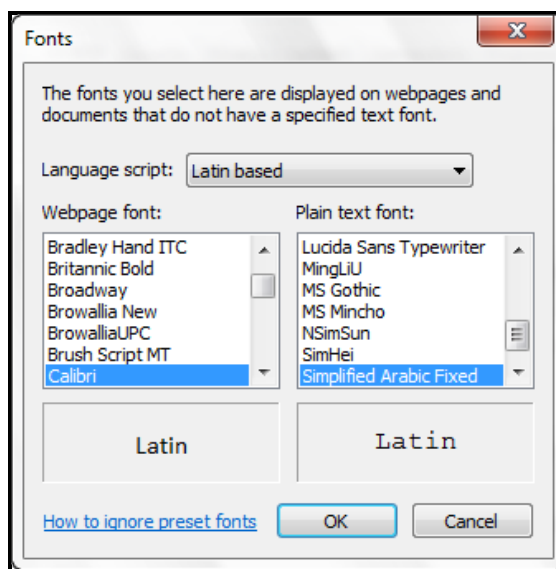


Figure 3.4-5: Internet Explorer Fonts

Step	Action
5.	On the Internet Options page, select <b>Accessibility</b> .

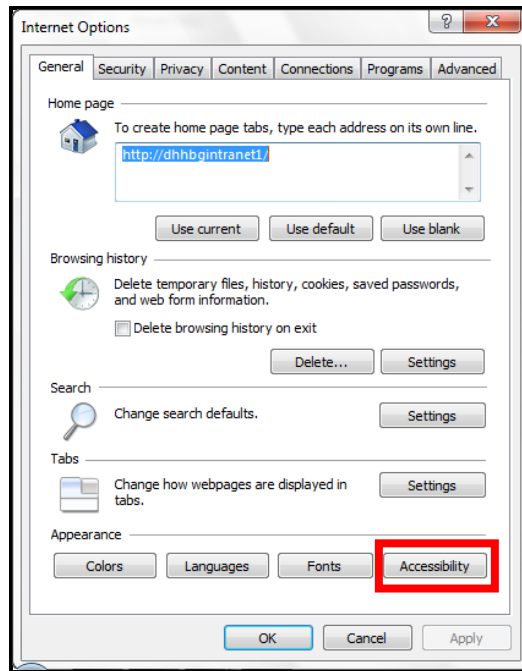


Figure 3.4-6: Security Section

Step	Action
6.	On the accessibility window, check the boxes next to <b>Ignore font styles specified on webpages</b> and <b>Ignore font sizes specified on webpages</b> and click <b>OK</b> .

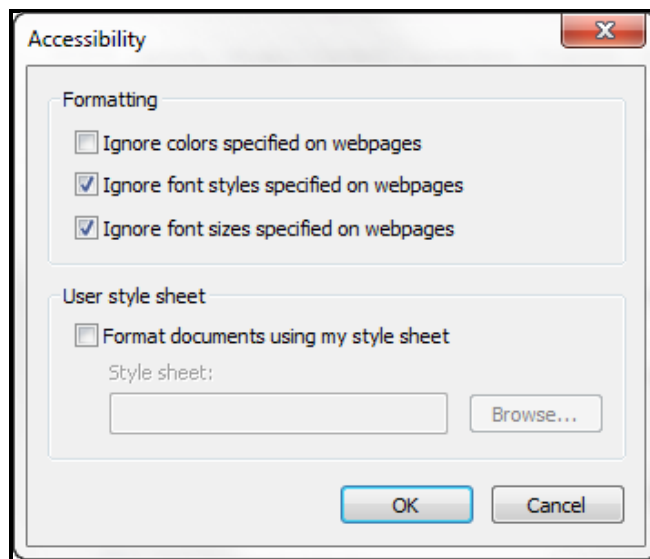


Figure 3.4-7: Internet Explorer Accessibility

When you access NEDSS, you should be able to access all buttons (the bottoms of some may still be cut off a bit, but you should still be able to read the content.) Be aware, though, that the look of NEDSS will be a bit different as you are replacing the font on the page with the one you chose in the font list. This will apply to ALL websites, but in testing it didn't affect the readability of any other pages and the font is not drastically smaller than the default font size.

## 4. Frequently Asked Questions

**Question:** Who determines the access rights for users, or do all users have the same level of access?

**Answer:** All hospital, laboratory, and physician users have the same level of access – you can see data that anyone in your organization has entered in PA-NEDSS. Users are allowed to view and update data that someone in their licensed organization has created, or where they have a unique identifier (accession #) and the patient's last name. A hospital and a laboratory are considered to be separate organizations even though they are under the same management chain; Public Health Staff have different access rights determined by their supervisors.

**Question:** When do passwords expire and are users prompted to change them?

**Answer:** Passwords expire in 60 days. At that time, users will be redirected to a screen where they must change their password before logging on to the site. The system will notify the user at each log on of an impending password expiration beginning 25 days prior to the expiration date.

**Question:** Who terminates user accounts when employees are terminated or no longer need access to PA-NEDSS?

**Answer:** You should contact the PA-NEDSS Help Desk at 717-783-9171 and inform them that an employee has left. The user's account will be disabled by the Department of Health Security Officer.

**Question:** Will my organization's firewalls interfere with the use of PA-NEDSS?

**Answer:** Firewalls may or may not pose an issue in using PA-NEDSS. In order to work successfully, the firewall must be able to pass traffic on TCP port 443 (SSL traffic for secure Web browsing). This port is typically open, but if you are having trouble accessing PA-NEDSS, you should check with your firewall administrator or contact your information technology department.

**Question:** How does my account become locked?

**Answer:** Your PA-NEDSS account will become locked after three failed attempts to log on to PA-NEDSS. Your account will become unlocked automatically after 12 hours or you may call the PA-NEDSS Help Desk at 771-783-9171 for assistance with unlocking your account.

**Question:** What is the process to follow if someone believes his or her password was compromised?

**Answer:** The user can change his/her password from the Change Password link on the Administration page or by contacting PA-NEDSS Help Desk at 717-783-9171 who will reset the password.

Users should also beware of **Phishing** attacks. Phishing attacks are "spoofed" e-mails sent to you that appear to come from a legitimate source asking you to provide or confirm confidential information such as your PA-NEDSS user name and password. If you receive a suspicious e-mail concerning PA-NEDSS, please call the Help Desk immediately. Do not respond to any e-mails if you do not know who the sender of the e-mail is. DOH staff will never send e-mails or call asking for confidential information or account information such as

your user name or password. If you receive an e-mail which appears to have come from a DOH staff member requesting this type of information, please treat it as a Phishing attack. Also, always remember, never to enter your user name or password into any site other than the PA-NEDSS log in screen at <https://www.nedss.state.pa.us>. Lastly, be sure not to click any links contained in e-mails that you believe may be a Phishing attack.

## 5. Contact Information

Users can make suggestions or communicate technical problems using a Web form accessible from the Contact Us link from any PA-NEDSS screen.

The **PA-NEDSS Help Desk** can be reached by calling 717-783-9171 or by email at [ra-dhNEDSS@pa.gov](mailto:ra-dhNEDSS@pa.gov).