

**Data for Pond Design Storage Calculations**

Overview: Eagle Point can extract stage/storage information from the original ground surface model for use in designing a pond or storage structure. These steps give the tools to make that information useable for SITES or HydroYardage software.

Eagle Point Steps Using the NRCS/EP Customized Menu

<p><b>Notation Method</b>  <u>Button to Press</u> <i>Displayed Text</i> <b>Icon</b> <u>Action</u> {Text to Enter} <u>Menu Item...</u></p>
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Extracting Pool Area data to an SAP file

1. In AutoCad, click on the **Layer Manager Icon**.
2. Select the *1.Bndr* layer. Set to Current.
3. Click OK close out of Layer Manager.
4. Click **Polyline** and draw a border that defines the limits of the storage area. To close the line cleanly, type {C} and press Enter.
5. From AutoCAD Click *NRCS/EP... Reservoir Detention...*
6. If you have not already created a Watershed Modelling Scenario, the Manage Scenarios box comes up. Click **New Scenario**.
7. Input a name. E.g. {Bear Creek 33}. Click OK
8. Click Close
9. Edit Reservoir appears. Click the **Folder Icon** by the Name line.
10. Click **New Reservoir**.
11. Input a name. E.g. {BC 33 Dam1}. Click OK
12. Click Close. *BC 33 Dam 1* will appear in the name line.
13. Pulldown Storage Method to *User-Defined Storage*.
14. Click Storage Parameters...
15. Click Generate from Surface Model...
16. Pulldown Surface Model to *Ognd*.
17. Input the Maximum elevation that you want to get storage up to. E.g. {1110}
18. Input the contour interval that you want get volumes at. E.g. {2.0}
19. Click on the boundary that you had drawn.
20. Take note of the minimum elevation that was generated. E.g. {1064.2}
21. Click Close
22. Input the minimum elevation, maximum elevation, and increment into the Rating curve limits. E.g. {1064.2}, {1110}, {2}
23. Click Apply.
24. Click the **Folder Icon** by the Name line.
25. Click Export...
26. Pulldown Save as type: to *Stage Storage from Surface Model(\*.SAP)*
27. Input a filename: E.g. {BC33 dam1} Click Save.
28. Click Close
29. Click Close

### Converting Pool Area data to HydroYardage or SITES

1. Open the *Convert EP Pool Data.xls* spreadsheet.
2. Click **Enable Macros**.
3. Input the County, State, Rainfall Distribution, and Designer for this project.
4. Review the default for the location of HydroYardge Program on your computer. The CCE installation default location is "C:\Program Files\USDA\PondHy\Hydroy".
5. Click **Run EP Pool Data Conversion**.
6. Click **Select a File**.
7. Browse to the location of the .SAP file. Select the file and Click **Open**.
8. Review the Elevation vs Area data to ensure that you have the correct information.
9. Input a Project Name. E.g. {BC33 Dam 1}.
10. Click on the Output Format that you would like to have created: HydroYardage, SITES, or Both.
11. Click **Convert**.
12. For SITES Projects:
  - a. Browse to the location where you would like to save the tab delimited Structure data table.
  - b. Input a name for the file. E.g {BC33 Dam1 }
  - c. Click **Save**. Click **OK**.

Note: This file can be imported into SITES at the Structure Data Table screen by using File... Import...and browsing to the .txt file
13. For HydroYardage Projects:
  - a. Click **Find Cross Section Data** if you have used the Coordinate Extractor tool to create a Station/Elevation tab delimited file in the .ras format for the section on centerline of the dam. This allows you compute an earthwork quantity within the HydroYardage program.
    - i. Browse to the location where you saved the .ras Station/Elevation cross section file.
    - ii. Highlight the filename E.g {BC33 Dam1 } and Click **Open**.
    - iii. Review the data for completeness and Click **Use this data**.
    - iv. Click **OK**.
    - v. Click **OK** and note the name of the HydroYardage project file that has been added to the list of existing jobs.

**Or**

  - b. Click **Pool Area Data Only** if you want to import only the elevation vs pool area data.
    - i. Click **OK** and note the name of the HydroYardage project file that has been added to the list of existing jobs .
14. If done converting files, click **Quit** and close the spreadsheet.