

# Introduction to Editing in RAS Mapper

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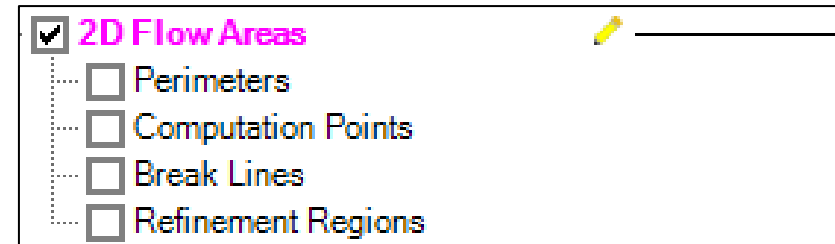
USACE, Institute for Water Resources, Hydrologic Engineering Center





# 2D Flow Area Mesh Editing in RAS Mapper

- Meshes are generated from a set of computation points with consideration to polygons and breaklines.
- 2D Mesh components:
  - Perimeter Polygon
  - Computation Points
  - Breaklines (Optional)
  - Refinement Regions (Optional)

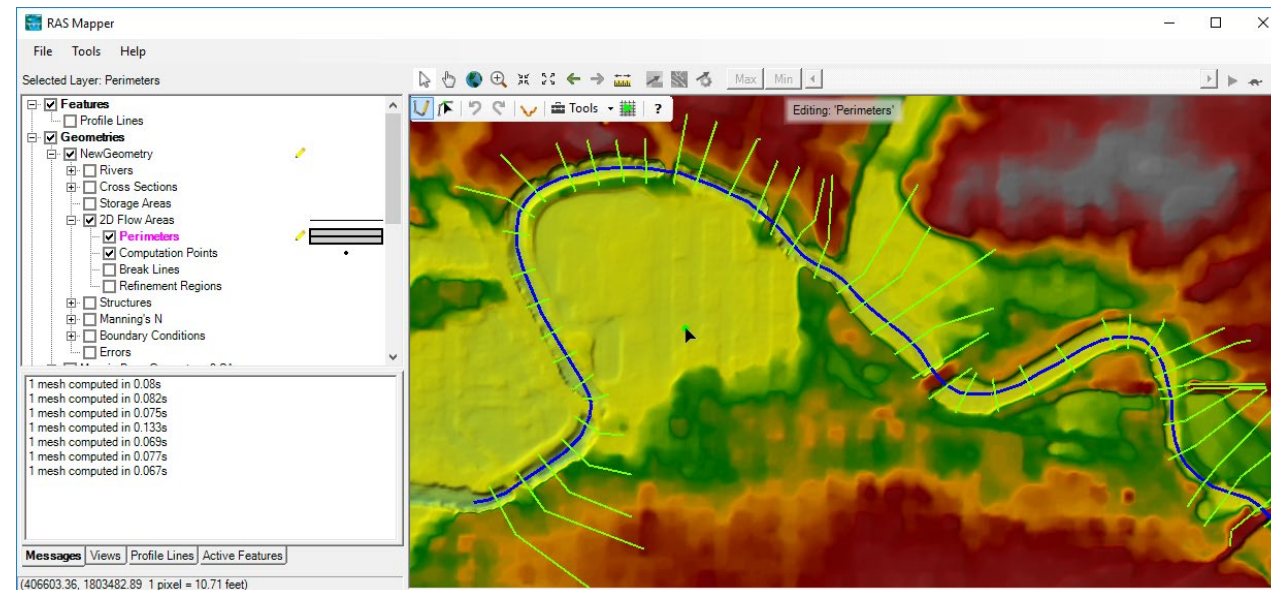
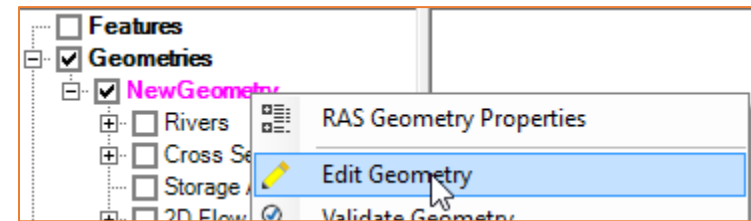
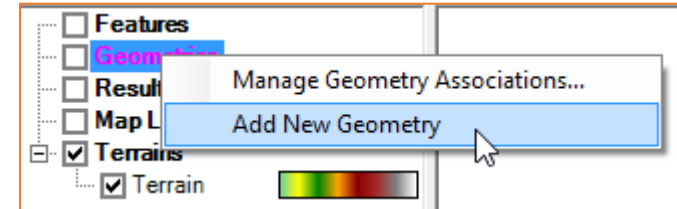


- Editing tools available from the Geometry or any Layer



# Editor Access

- Create a New Geometry
- Edit Geometry
- Edit Toolbar
- Select Layer





# Editing



- Add New Feature



- Select/Edit Feature



- Undo/Redo



- Plot Profile

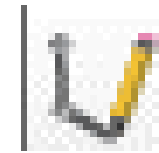


- Tools



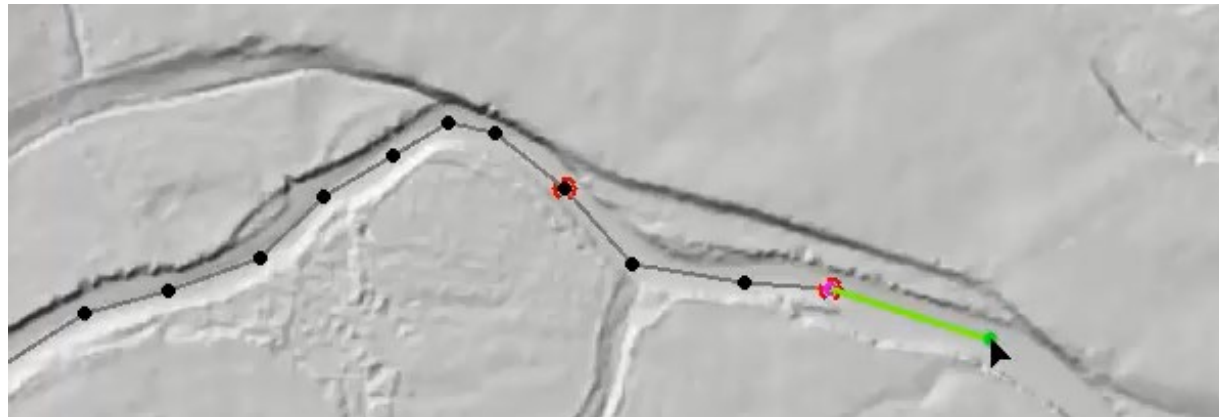
- Help





# Add New Feature

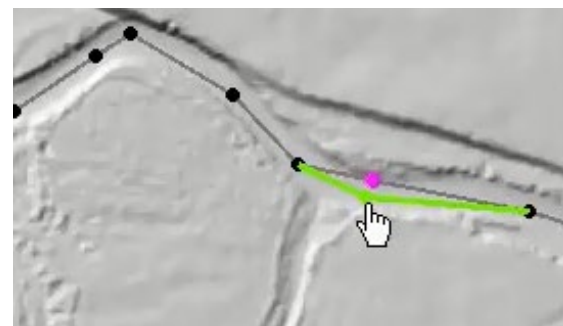
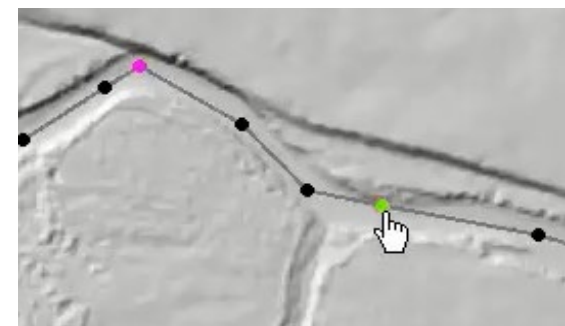
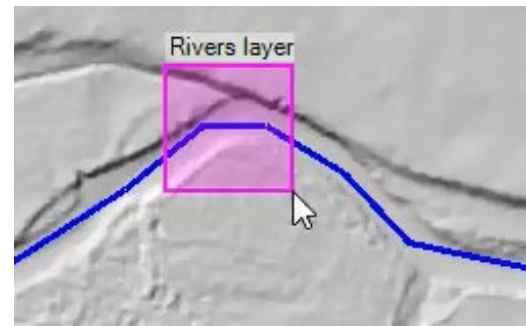
- Left-click to start adding a new point, line, or polygon
- Double-click to end a line or polygon
- Pan by switching to Pan tool, Shift key, Middle Mouse, or right-click to re-center.





# Select / Edit

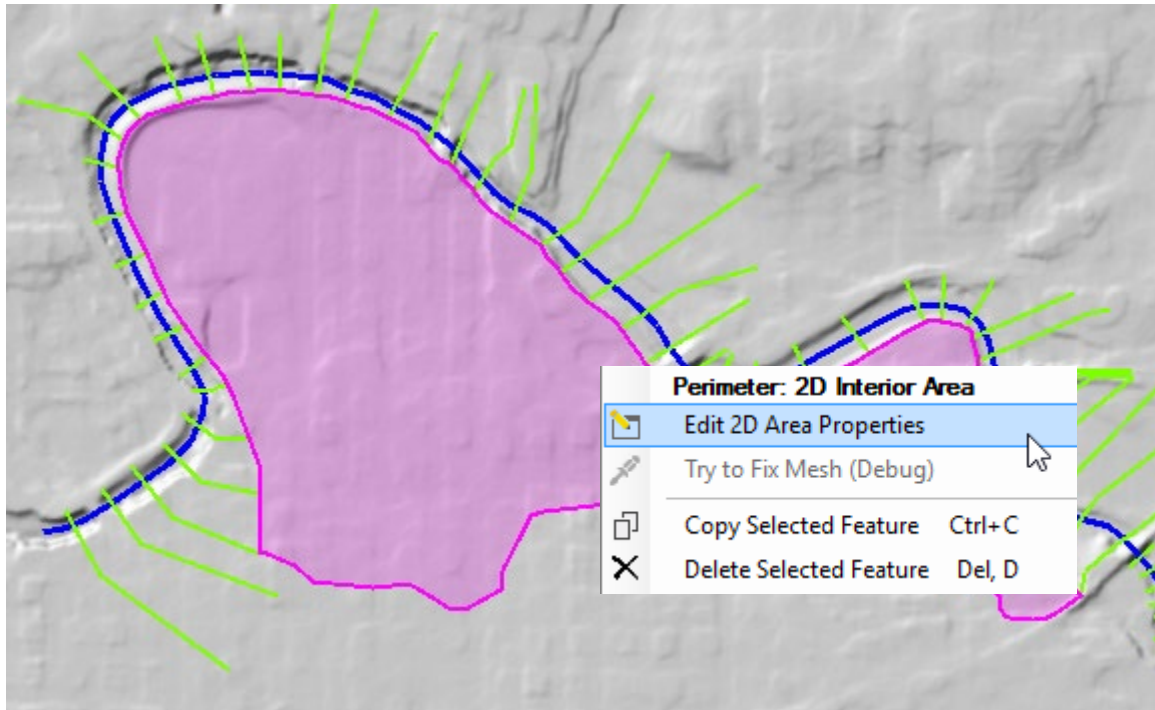
- Select / Edit tool is used to select feature(s) and then begin editing (move, add points, delete, etc).
  - Double-click to Start Editing (Open feature)
  - Double-click to End Editing (Close feature)
- Mouse hover indicates action
  - Green point indicates: Move, Insert, Delete point





# 2D Flow Area

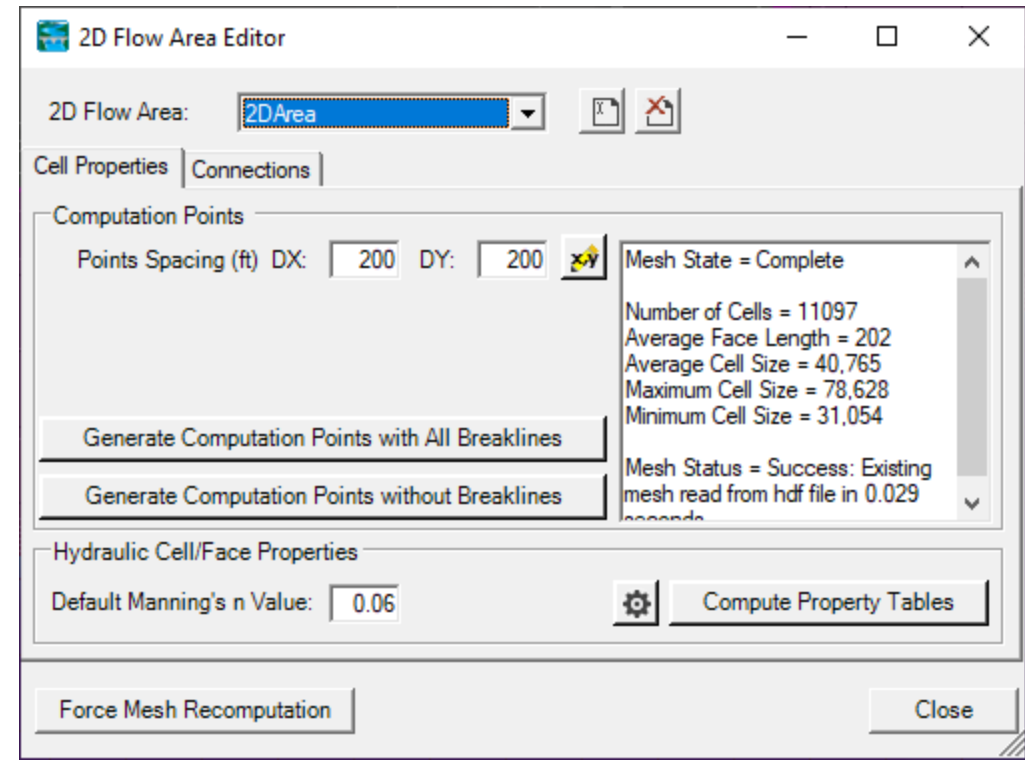
- Draw Perimeter



- 2D Flow Areas
  - Perimeters
  - Computation Points
  - Break Lines
  - Refinement Regions

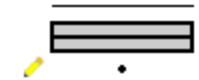


- 2D Flow Area Editor





- 2D Flow Areas
- Perimeters
- Computation Points**
- Break Lines
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# Computation Points

- Generate Computation Points at an even interval
  - Breaklines and Refinement Regions area enforced
- Default n Value
- Hydraulic Table Property Tolerances

2D Flow Area Editor

2D Flow Area: 2DArea

Cell Properties | Connections

Computation Points

Points Spacing (ft) DX: 200 DY: 200

Mesh State = Complete

Number of Cells = 11097  
Average Face Length = 202  
Average Cell Size = 40,765  
Maximum Cell Size = 78,628  
Minimum Cell Size = 31,054

Mesh Status = Success: Existing mesh read from hdf file in 0.029 seconds

Generate Computation Points with All Breaklines

Generate Computation Points without Breaklines

Hydraulic Cell/Face Properties

Default Manning's n Value: 0.06

Compute Property Tables

Hydraulic Property Table Tolerances

2D\_Area

Set the 2D Flow Area's Cell and Face Filter Tolerances for the Hydraulic Table Computations.

Cell Elev-Vol Filter Tol (ft):	0.01
Cell Minimum Area Fraction:	0.01
Face Profile Filter Tol (ft):	0.01
Face Elev-Area Filter Tol (ft):	0.01
Face Conveyance Tol Ratio:	0.02
Face Laminar Depth (ft):	0.2

Defaults OK Cancel

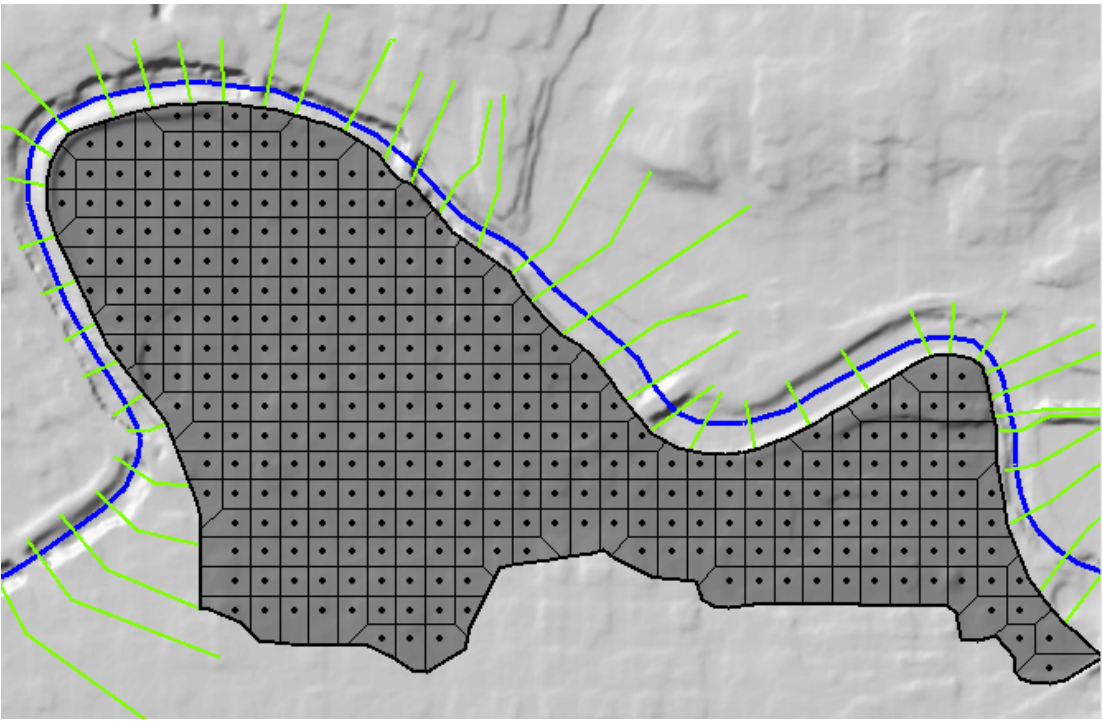




- 2D Flow Areas
- Perimeters
- Computation Points**
- Break Lines
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# Computation Points



- Mesh is generated from resultant set of computation points.

Edit Points

Selected Area Edits

Table Tools

	X	Y
1	405880.1458	1804922.839
2	406080.1458	1804922.839
3	406280.1458	1804922.839
4	406480.1458	1804922.839
5	405280.1458	1804722.839
6	405480.1458	1804722.839
7	405680.1458	1804722.839
8	405880.1458	1804722.839
9	406080.1458	1804722.839
10	406280.1458	1804722.839
11	406480.1458	1804722.839
12	405080.1458	1804522.839
13	405280.1458	1804522.839
14	405480.1458	1804522.839
15	405680.1458	1804522.839
16	405880.1458	1804522.839
17	406080.1458	1804522.839
18	406280.1458	1804522.839

OK Cancel

# Questions?