

## SbuilderX 3.13 – How to correct water artifacts

From Holger: "those water spikes and steps are not an issue with the mesh, they are failures in our algorithm that computes a proper sloped flatten for the water polygons. Most rivers have hundreds or even thousands of data points per river mile and once in a while the algorithm gets a hiccup for unknown reasons."

The reason standard water flattens or hydro polys don't work with ORBX water polys is because they have lower flatten priorities than our custom entries for the ORBX products. These flatten priorities are determined for each flatten polygon type in the terrain.cfg file. Thus, you would need to use our own water poly types and for those to become active in SBuilderX you need to exchange the default SBuilderX Polys.txt file (in the \Tools folder) with a custom version that includes the ORBX entries.

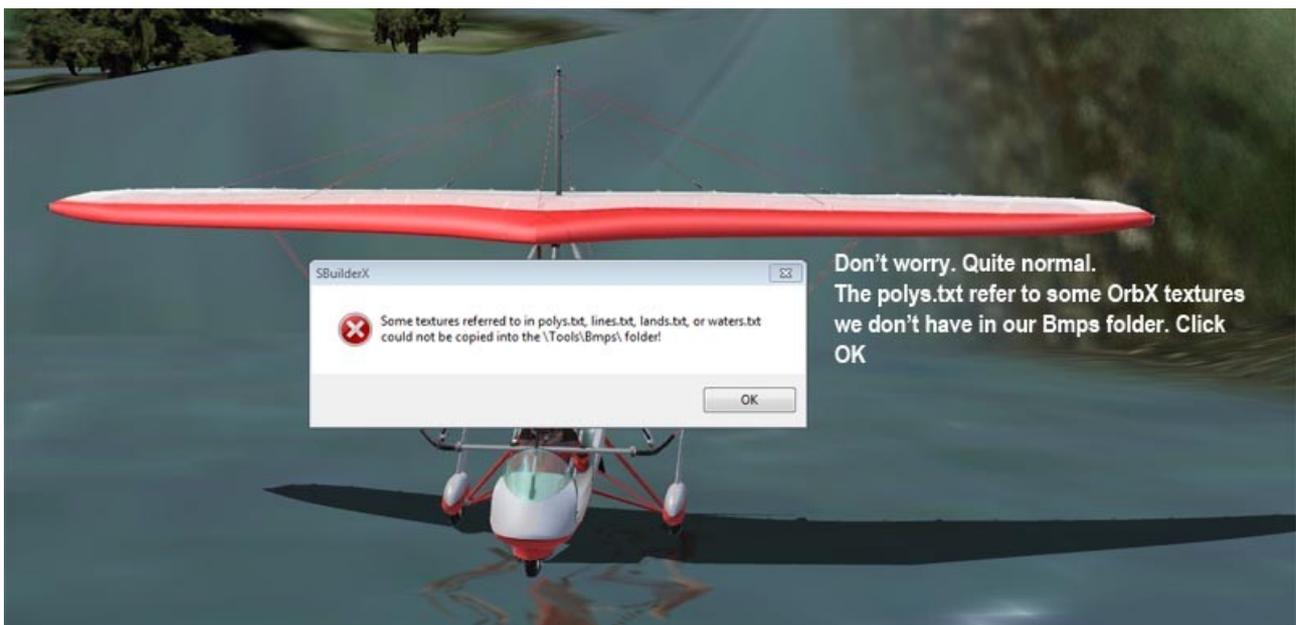
File to replace – ( added in this pack ; "Polys.txt" )

Make a backup copy of your current Polys.txt, and use it instead.

Now when you select a polygon tag in the SBuilderX polygon properties menu you should see a number of additional polygon types at the bottom of the menu. You're looking for the "FTX\_PNW\_LandWaterMask\_Water\_Ocean". That is a water polygon with a higher flatten priority than the ORBX river type ("FTX\_PNW\_LandWaterMask\_Water\_River") and will locally override any issues with the river flattens. Don't be confused by the "Ocean" tag, that's just an internal naming convention.

1 – Before we need to use the polys.txt file from Holger and OrbX as describe above

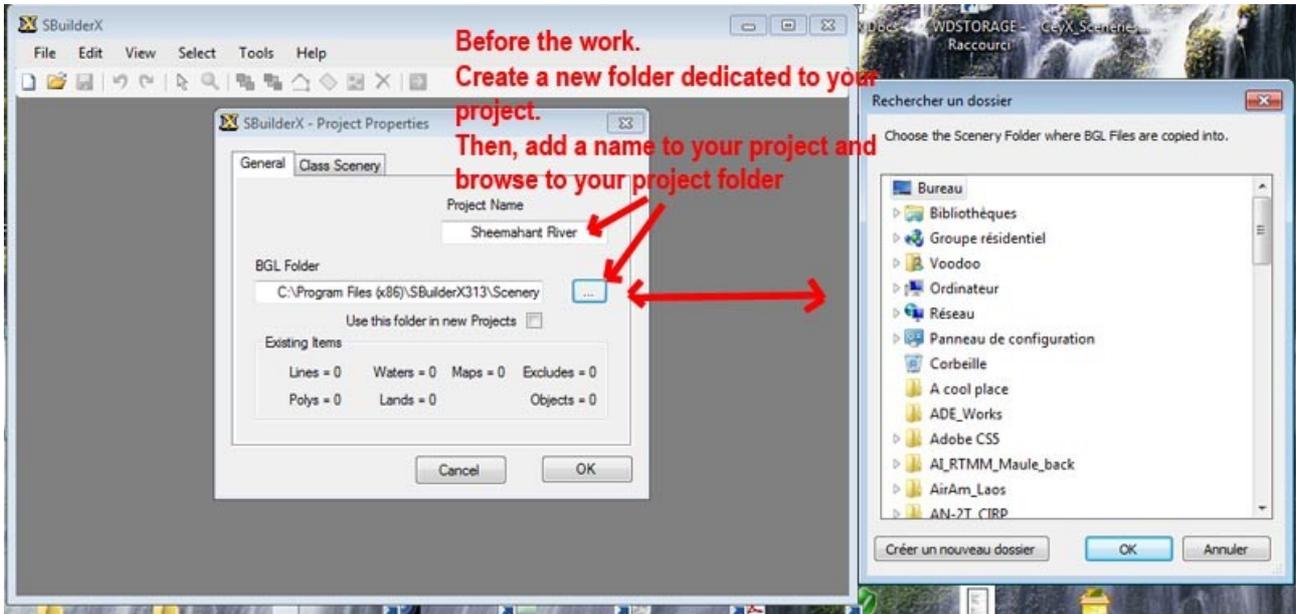
2 - When you start SbuilderX, you may get this message :  
error message Some textures referred to polys.txt.... could not be copied into the \Tools\Bmps\folder! - Don't worry, it is quite normal



**Sheemahant River – A very complex problem**

# The beginning : creation of a new project

## 1 – create a new folder dedicated to the project

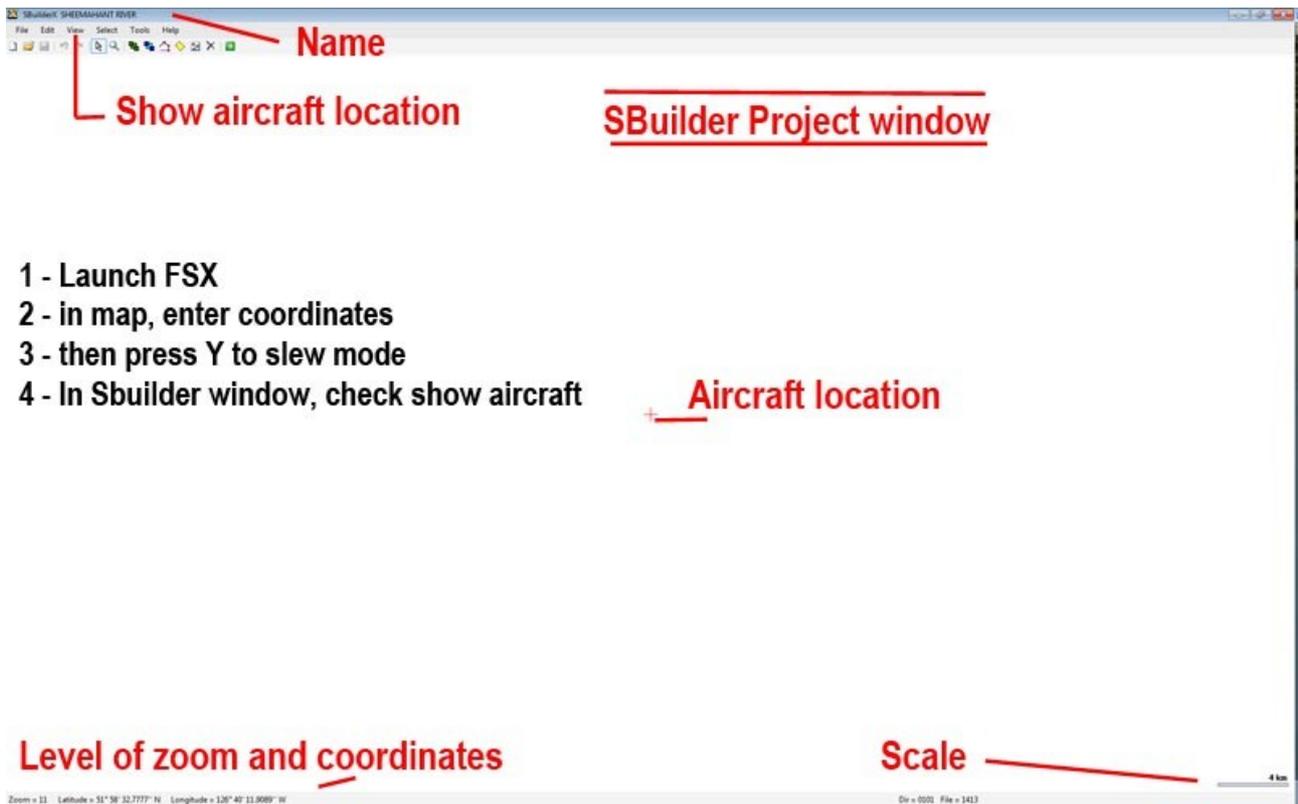


And now, let's see what is the problem on Sheemahant River

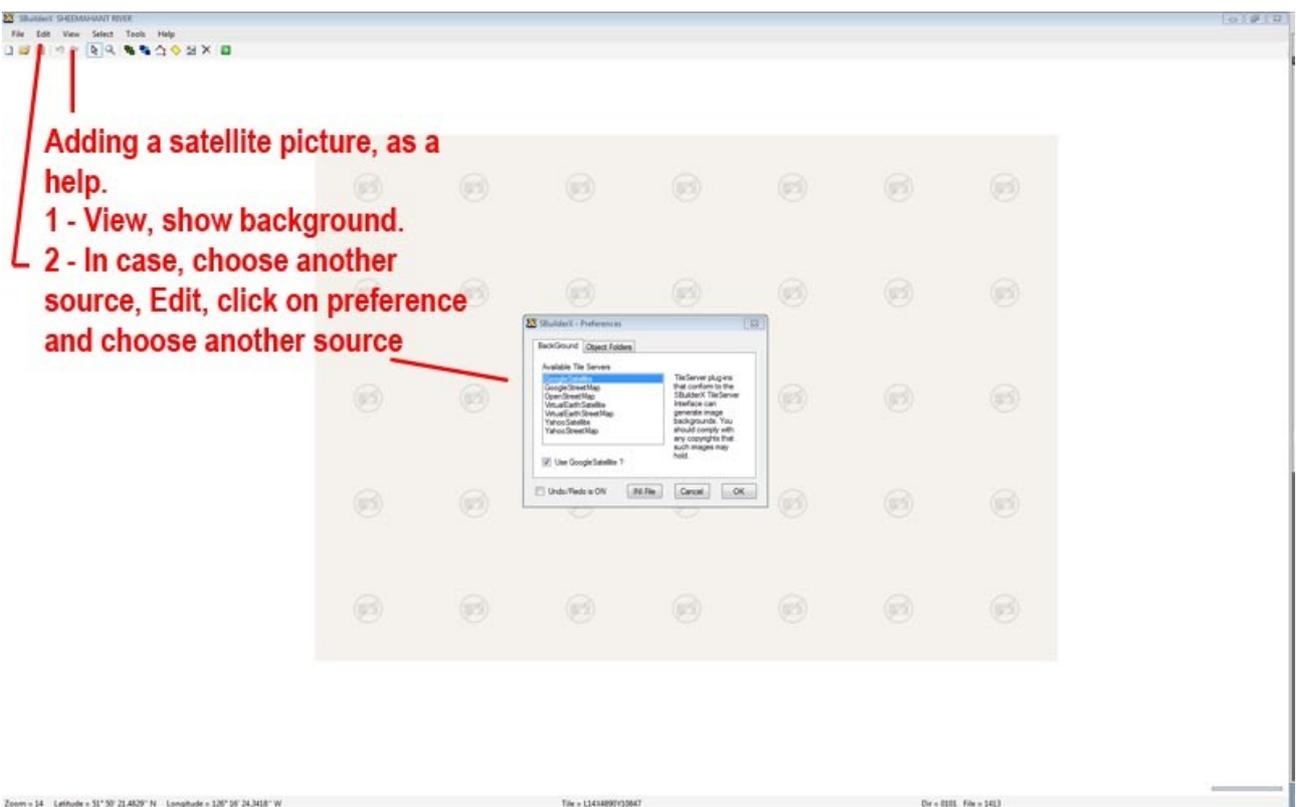
Launch FSX in window mode ( alt+enter)

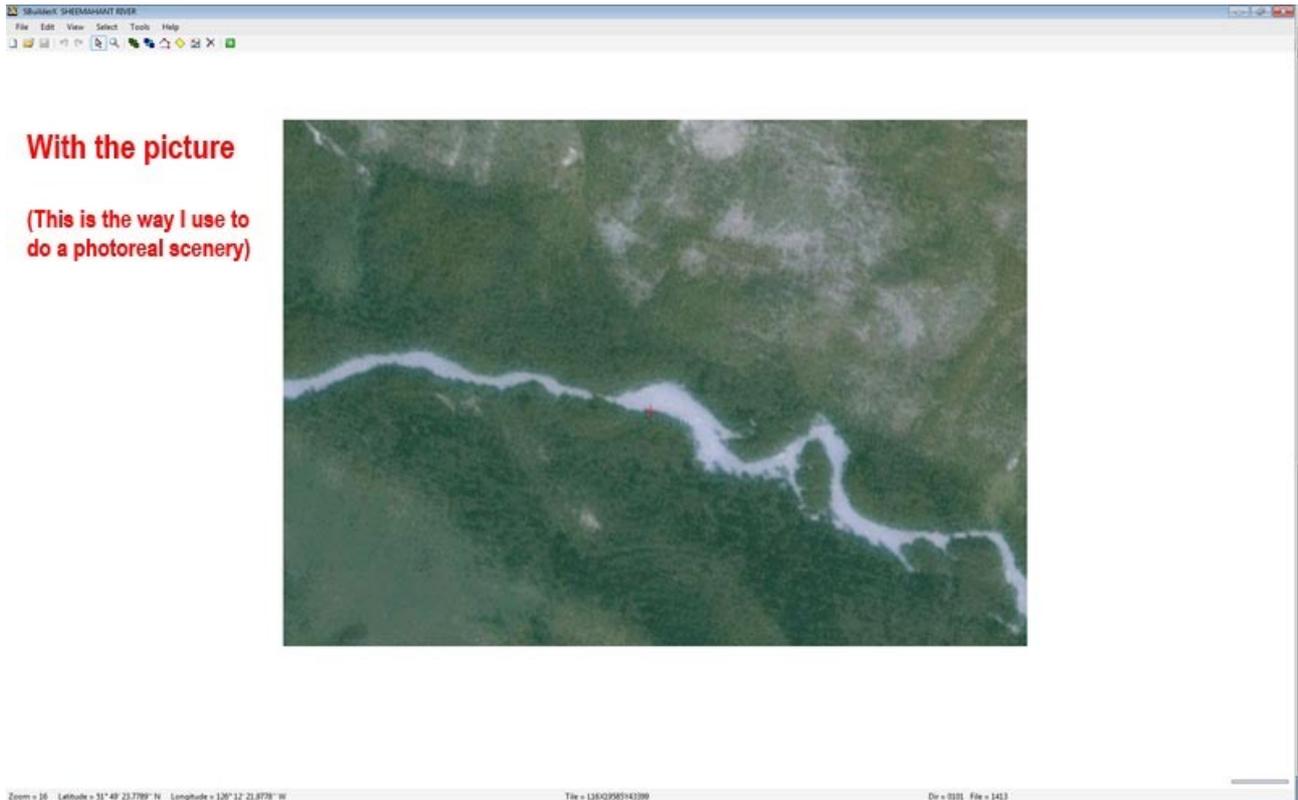


Go to the location, map, then enter coordinates.  
Then in Sbuilder, let's see the location and our aircraft



- 1 - Launch FSX
- 2 - in map, enter coordinates
- 3 - then press Y to slew mode
- 4 - In Sbuilder window, check show aircraft



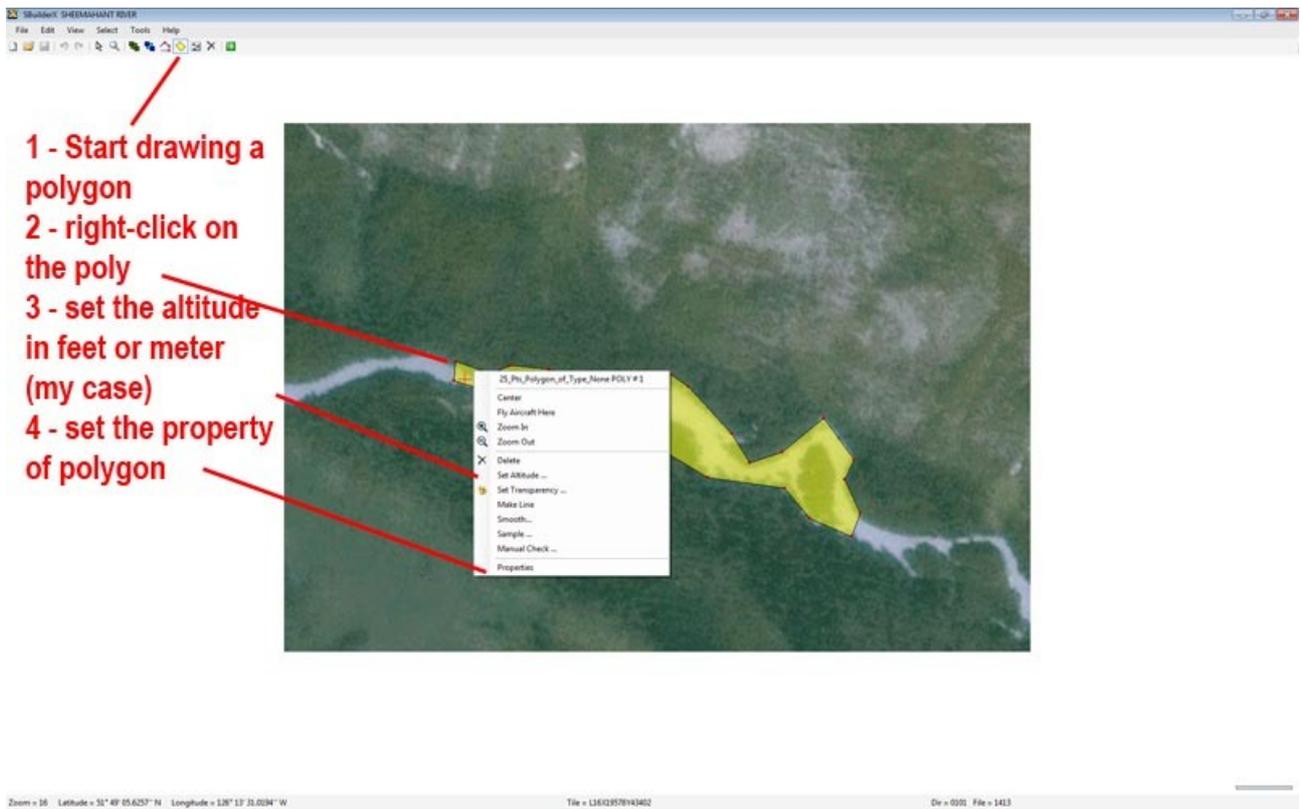


Look at your FSX window, and Sbuilder window  
you can switch between the 2 windows by alt+tab  
The best way to work is the use of 2 video displays

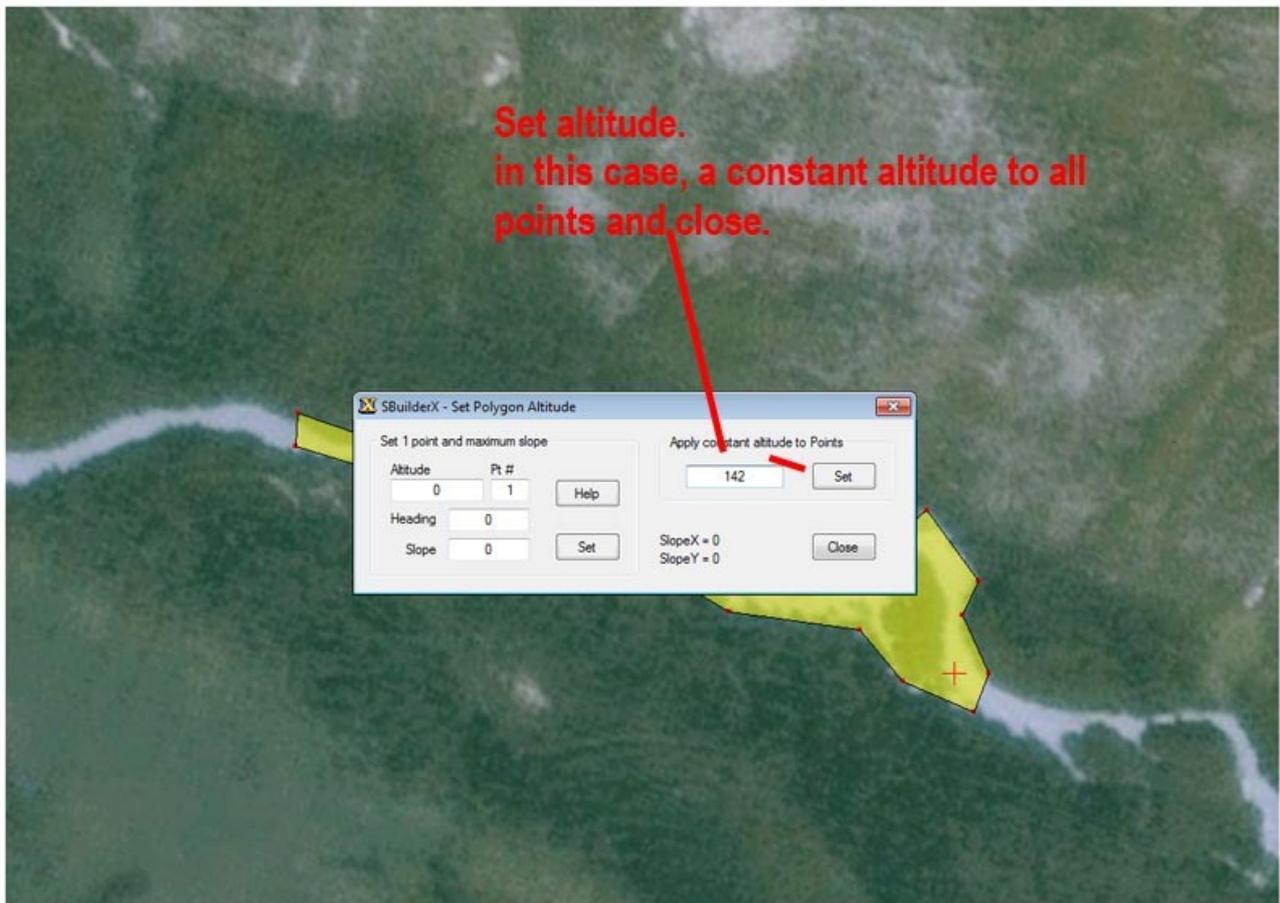
**move along the river in slew mode and check the elevation**



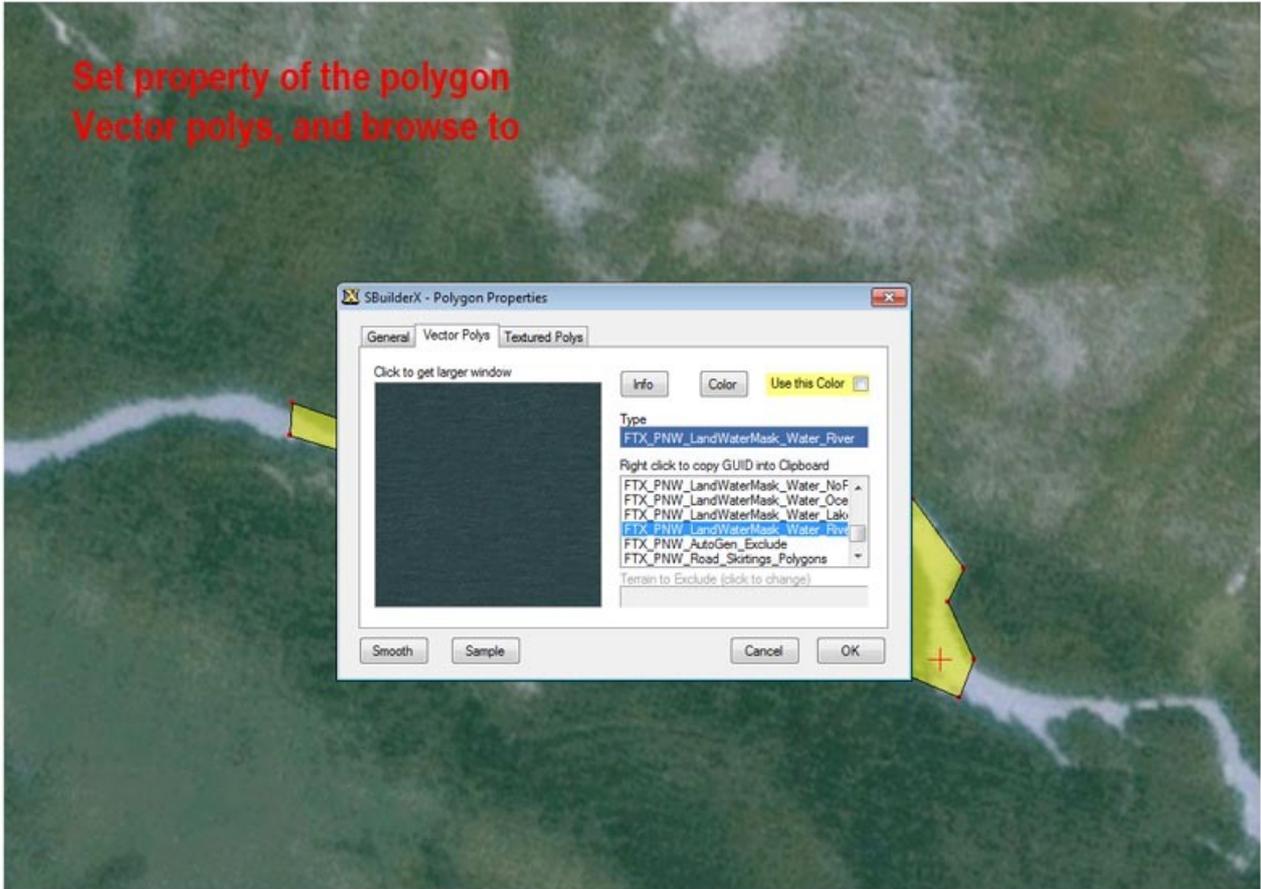
- 1 - Start drawing a polygon
- 2 - right-click on the poly
- 3 - set the altitude in feet or meter (my case)
- 4 - set the property of the polygon



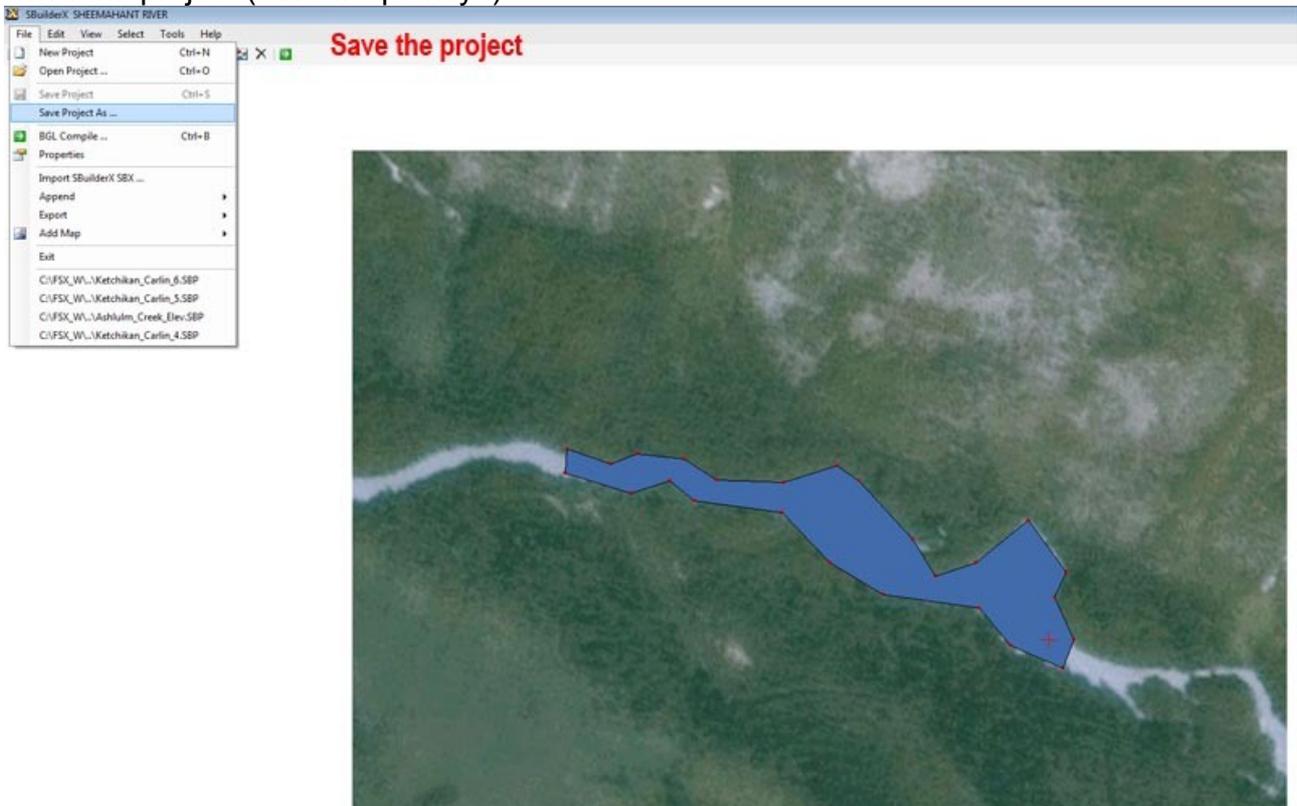
Hold the left-click of the mouse, and click to add point.

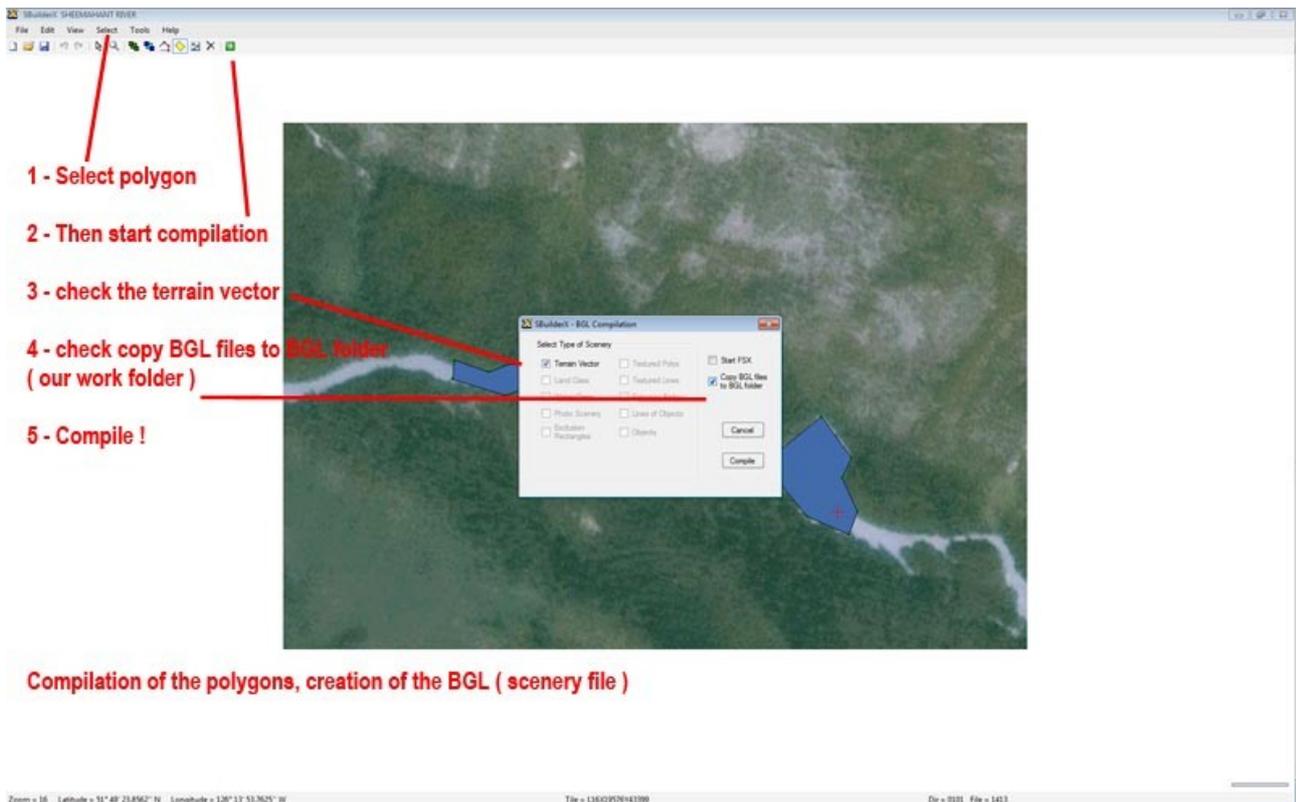


Set property of the polygon  
Vector polys, and browse to



Save the project (save frequently !)





Save your FSX flight and check as default flight, in order to go easily to our location. And close FSX (before; don't forget to uncheck show aircraft - Sbuilder – View menu )

Our compiled water polygon is located in the folder we have defined at start of the project

Copy paste the polygon file compiled by Sbuilder, ( in fact : the resampler tool from Microsoft FSX SDK ) :

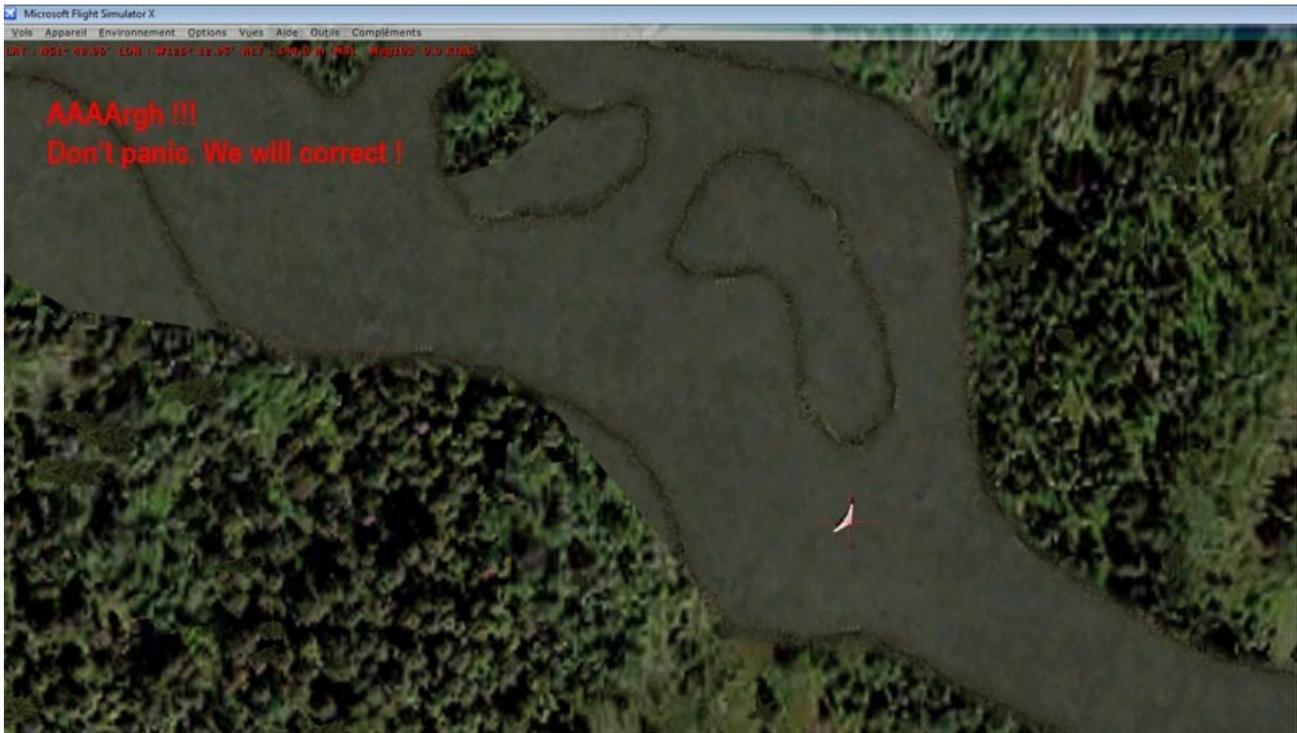
CVX\_Sheemahant\_River.BGL

CVX is a conventional suffix for compiled vector files (terrain, and some polys...)



Copy / paste this file into your FSX / addon scenery / your scenery folder

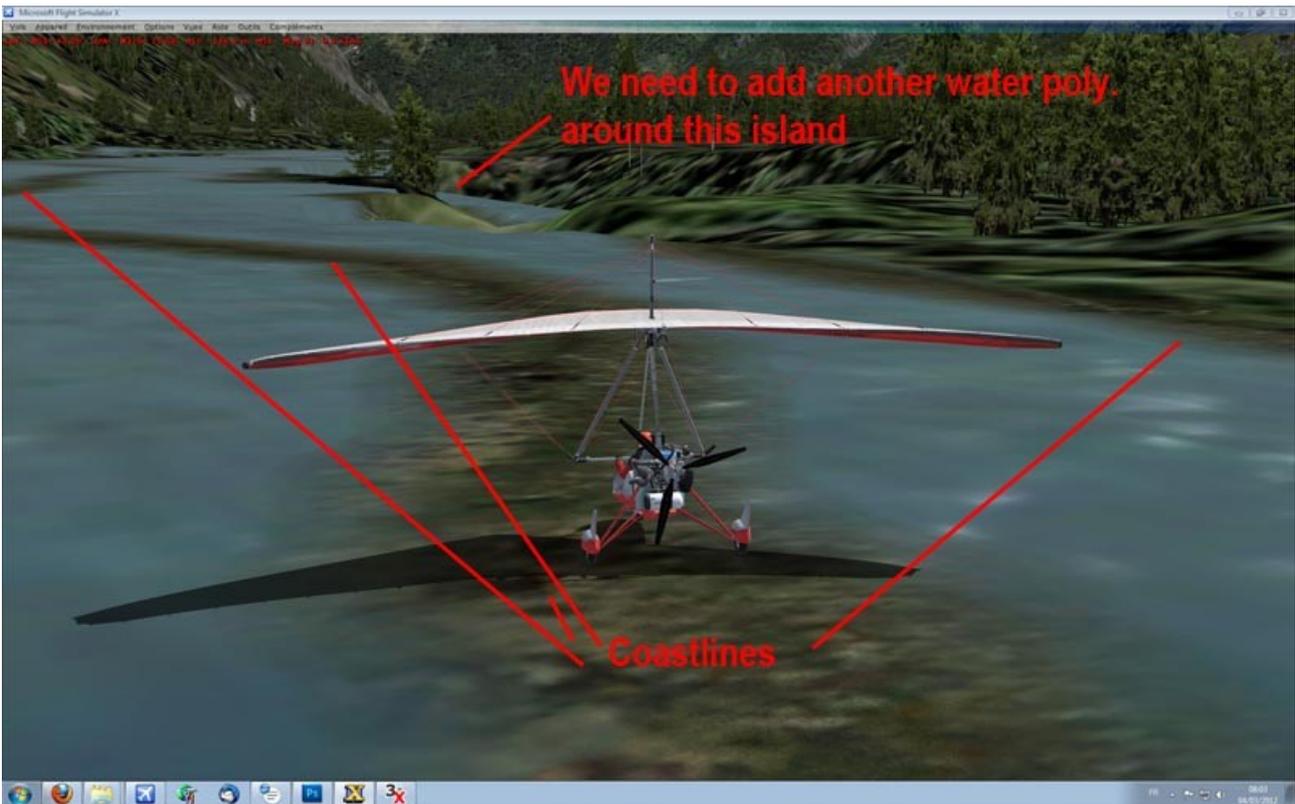
And start FSX



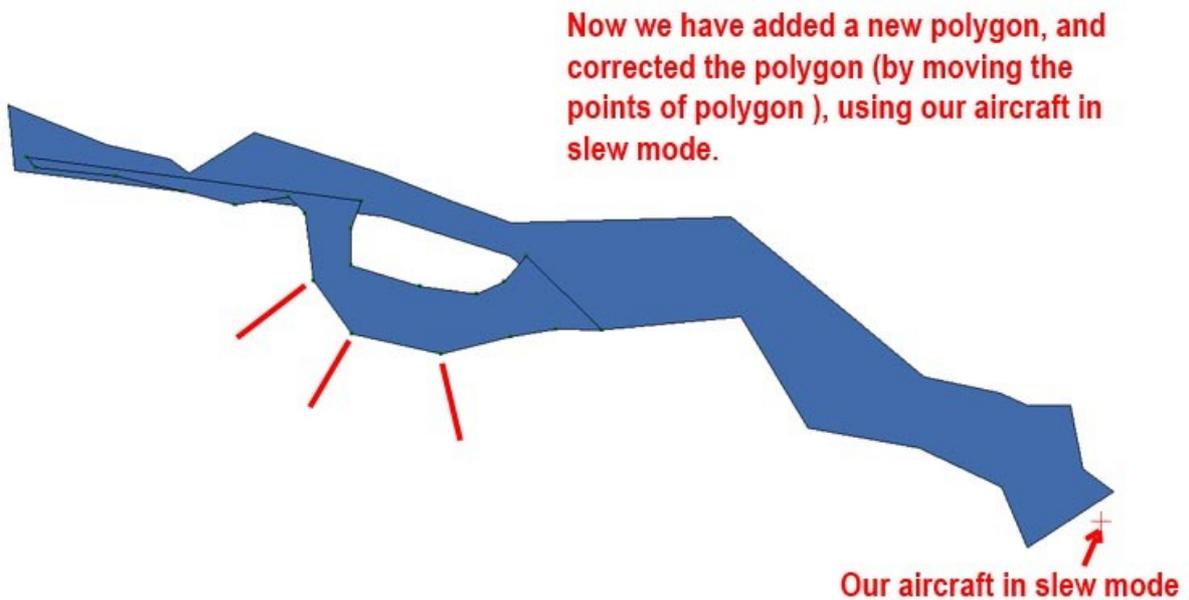
We can see that water covers a large area (polygon area) and there are some terrain elevation problems.

We need to correct the water polygon

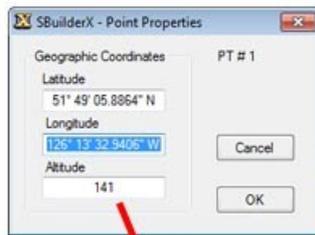
In Sbuilder, we can now move the points from the poly to adjust them to the coastlines, using, in FSX, our aircraft in slew mode and following the coastlines.



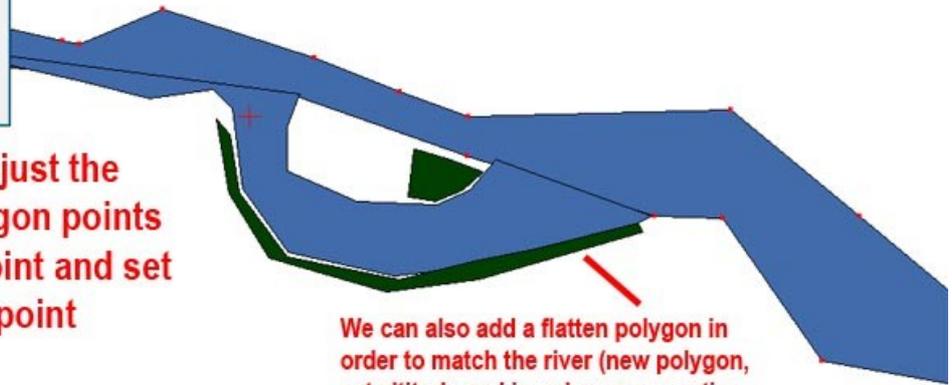
We don't need the satellite view.



In some case, (ie, in our case), we may need to correct altitude of some points of the water polygon, and maybe, also elevation of the terrain. I have tried, here, to correct elevation of terrain around the water, but without a great success.



**We may need to adjust the altitude some polygon points - right click on a point and set the altitude of this point (point properties)**



**We can also add a flatten polygon in order to match the river (new polygon, set altitude and in polygon properties, choose AB\_flatten)**

I have deleted the flatten polygon, keeping only the water poly.

Now, we can save our project, and compile it, once more.

This is now correct, but in some case, the flatten poly add more problem. So in our case, we may keep this scenery, not perfect but usable.

End

Xavier Carré – Return to Misty Moorings