

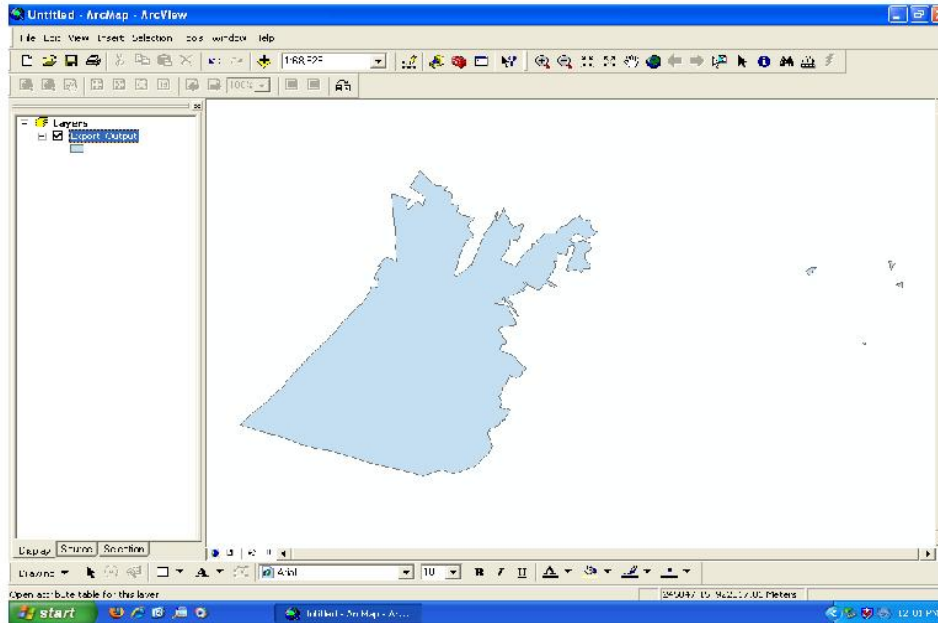
Does land use change due to the  
change in population in Salem  
during the 80's & 90's ?



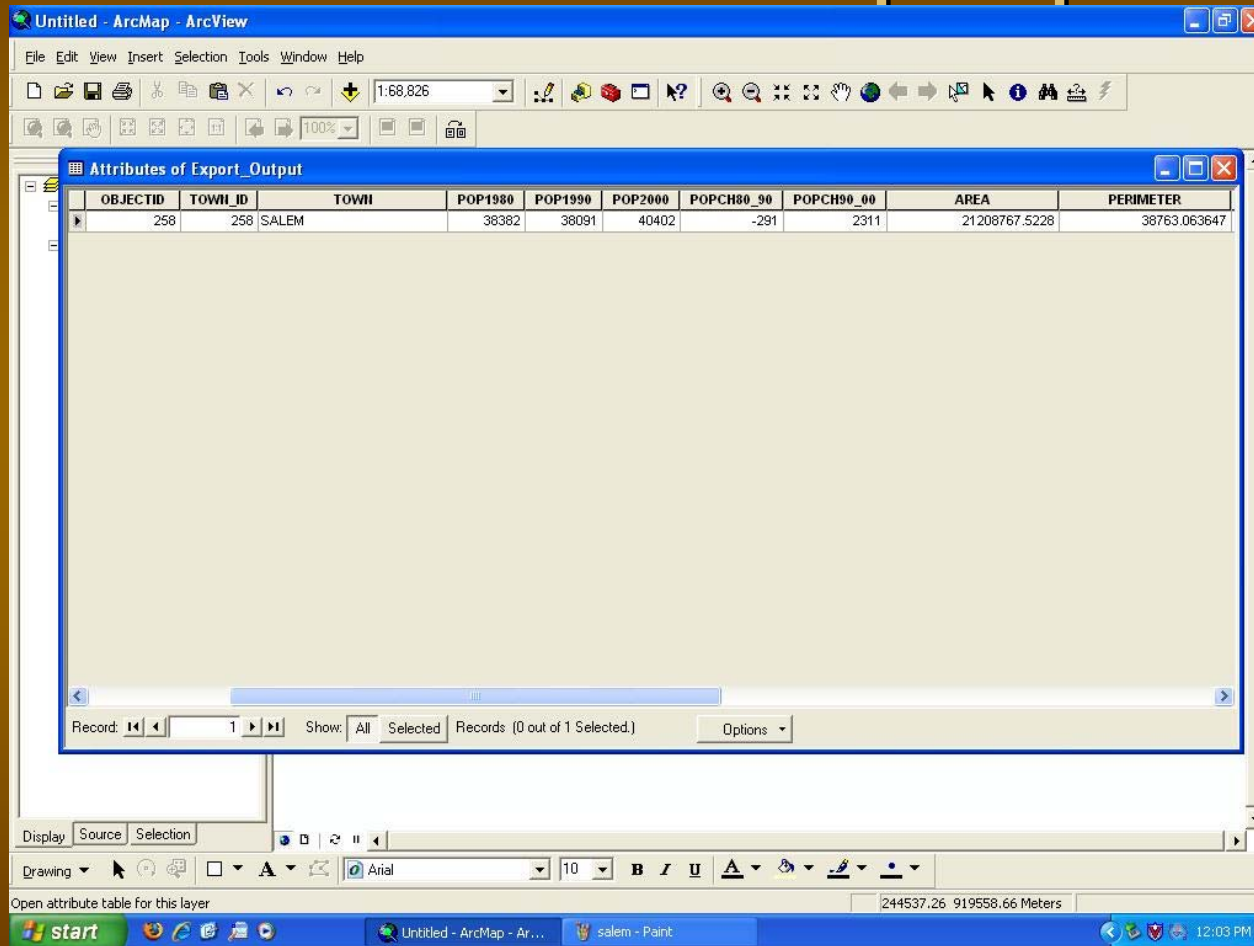
# ways to answer the question..

- To see if there is a the change between the 80's & 90's in land use.
- Is the populations a factor, over time with land use in Salem.
- Decided on a few land uses to look at, cropland(1), pasture(2), forest(3), smaller than  $\frac{1}{4}$  acre land res.(11), commercial(15).

# Started with Salem town layer



# Salem population with changes decrease of 291 people



Attributes of Export\_Output

OBJECTID	TOWN_ID	TOWN	POP1980	POP1990	POP2000	POPCH80_90	POPCH90_00	AREA	PERIMETER
258	258	SALEM	38382	38091	40402	-291	2311	21208767.5228	38763.063647

Record: 1 Show: All Selected Records (0 out of 1 Selected.) Options

Display Source Selection

Drawing Arial 10 B I U

Open attribute table for this layer 244537.26 919558.66 Meters

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# The land use table with the noticeable different.

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Select by Attributes

Attributes of 80\_90\_land\_use

FID	Shape*	TILE_NAME	LU_ID	OBJECTID	LU21_1971	LU21_1985	LU37_1985	LU21_1999	LU37_1999
0	Polygon	258	26	578103	15	15	15	15	15
1	Polygon	258	16	578094	3	3	3	3	3
2	Polygon	258	38	578115	11	11	11	11	11
3	Polygon	258	109	578188	15	15	15	15	15
4	Polygon	258	108	578187	15	15	15	15	15
5	Polygon	258	146	578225	11	11	11	11	11
6	Polygon	258	187	578263	3	3	3	3	3
7	Polygon	258	230	578305	15	15	15	15	15
8	Polygon	258	250	578325	17	15	15	15	15
9	Polygon	258	339	578414	17	17	17	15	15
10	Polygon	258	342	578417	3	3	3	3	3
11	Polygon	258	357	578432	3	3	3	12	12
12	Polygon	258	409	578484	3	3	3	17	31
13	Polygon	258	411	578486	3	3	3	3	3
14	Polygon	258	361	578436	3	3	3	3	3
15	Polygon	258	317	578392	6	6	6	3	3
16	Polygon	258	341	578416	3	3	3	3	3
17	Polygon	291	17	590543	3	3	3	3	3
18	Polygon	258	180	578257	3	3	3	3	3
19	Polygon	258	20	578096	3	3	3	3	3
20	Polygon	258	110	578189	11	11	11	11	11
21	Polygon	258	247	578322	3	3	3	3	3
22	Polygon	258	305	578380	3	3	3	3	3
23	Polygon	258	222	578297	3	3	3	3	3
24	Polygon	258	233	578308	3	3	3	6	6
25	Polygon	258	335	578410	3	3	3	3	3
26	Polygon	258	417	578492	3	15	15	15	15
27	Polylines	168	96	581974	3	3	3	3	3

Record: 1 | Show: All Selected | Records (105 out of 155 Selected.) | Options

Display Source Selection

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Number of features selected: 105

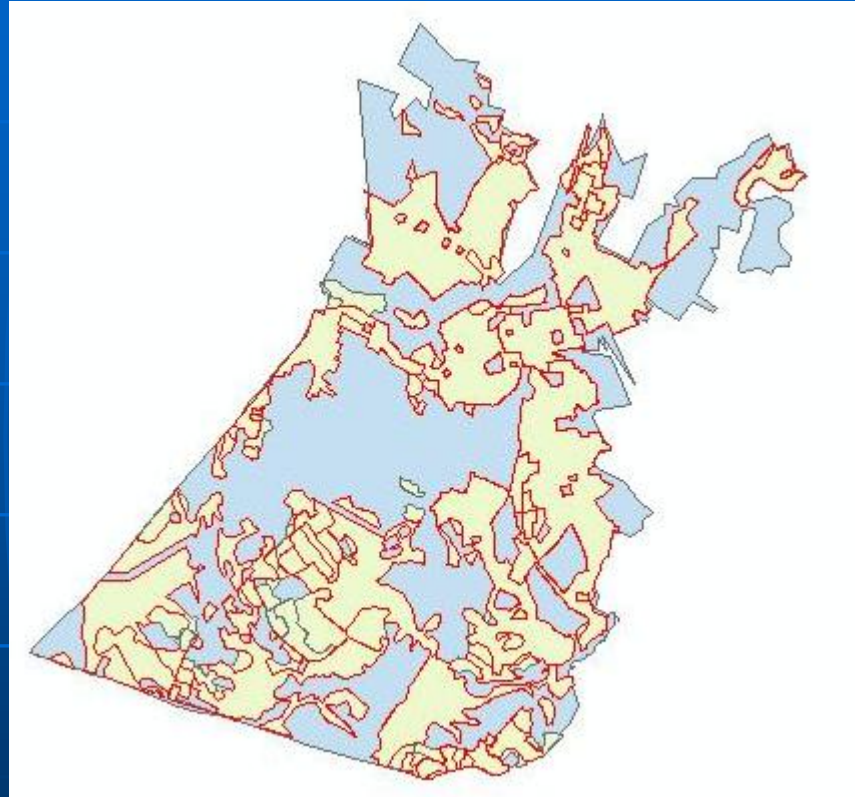
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# Land use changes are...

- 34% overall land use has changed in Salem, Ma between the 80's and 90's.
- Forest – med residential 7%
- Forest – open land 6%
- Forest – multi family 5%
- Commercial – urban 4%
- Forest – urban 4%
- Forest – Industrial 3%
- Pasture – high density residential 1%
- Commercial – Industrial 1%
- Forest – commercial 1%
- High density residential – open land 1%
- Commercial – open land 1%



# Visible change..



All the areas that are outlined in red has not changed between the years, the smaller sections that are displayed with thin black lines have changed.



# Mass GIS source of information

- Land use layer, list 21 different land use ID's, contains 70's, 80's & 90's data.
- Census 2000 town layer, contains all the census data for the state of MA, 80's, 90's & 2000 info.
- Town layer, town boundiers