Tutorial for downloading the city of Ottawa's monthly service request submissions data

Which ward has the gets the most noise complaints in the summer? Where are the city's graffiti hotspots? Which residents complain the most about stinky garbage, especially on hot, humid days?

You'll find the answers to these questions, and many others, in the city of Ottawa's awkwardly titled "Monthly Service Request Submissions" database.

Cities track complaints through a 311-system dispatch system. This means that any time a resident complains about noise, garbage, or graffiti, the city dispatcher relays the complaint to bylaw services, solid waste collection, or another city department.

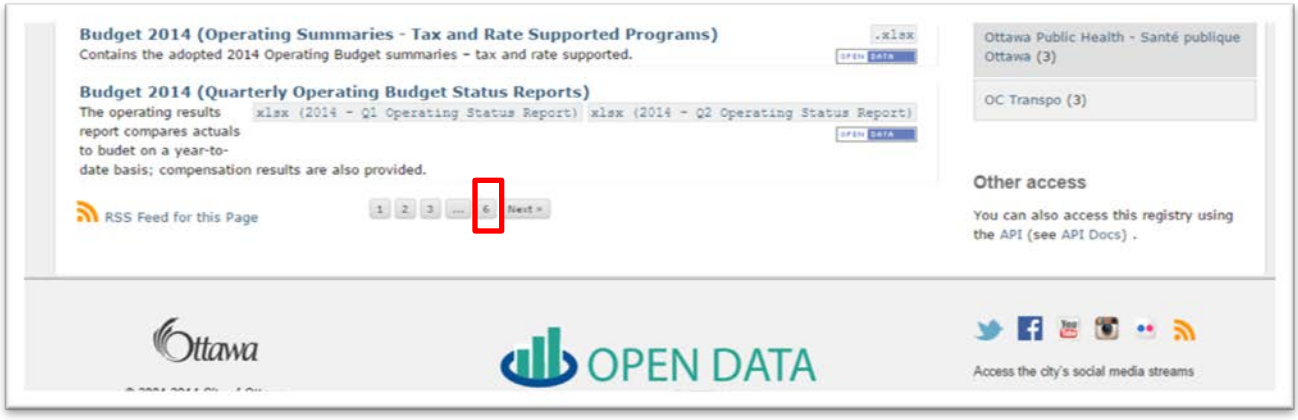
City officials log and categorize the complaints in the submissions database, which they upload to the open data catalogue website. You can do download these data sets and use pivot tables to find trends.

But the monthly data sets in questions have the added bonus of identifying the wards, which means that you can literally use Google's Fusion Tables to map complaint hotspots.

For instance, you can visualize and write stories about the wards that have the highest number of noise complaints, and even use population data to calculate the complaints per capita.

So let's get started.

1) Go to the Ottawa open date catalogue site and download the August 2014 Monthly Service Request Submissions data.
2) Save the database in the folder for this tutorial.
3) We'll also need the boundary file for the wards, which you can obtain by clicking the tab "6" at the bottom of the page…….

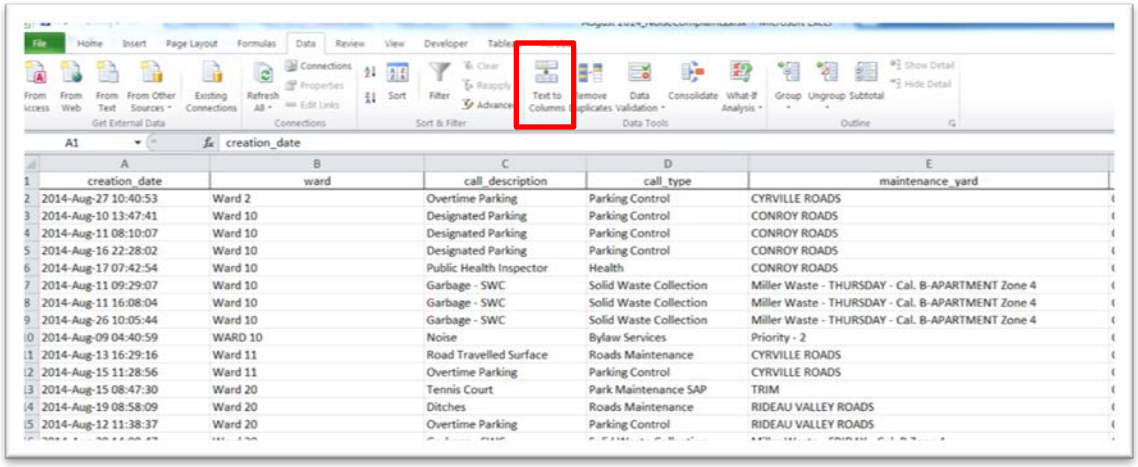


or simply browsing until you get to the "W's". Either way, you're looking for "Wards 2010", which comes in different formats. We want the "kml" file. Short form for "keyhole language

markup", this is a file type that Google Fusion tables recognize.

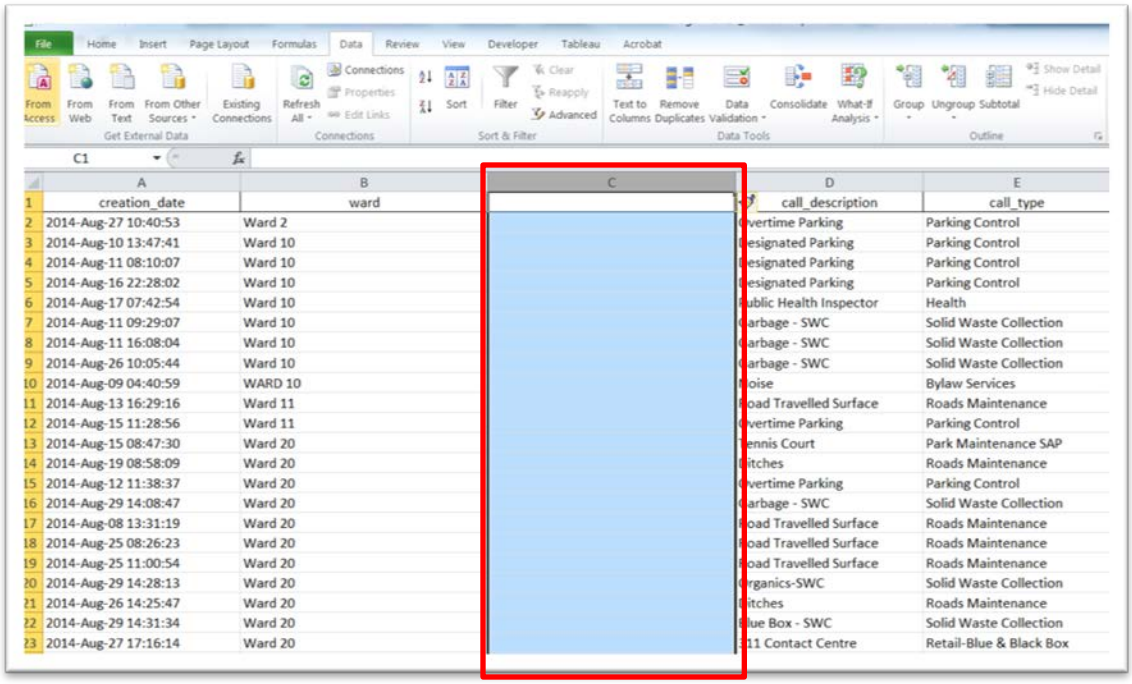
4) You can download the file.
5) A note of caution, though, it may not upload into Fusion Tables.
6) If not, try a cleaner version of the file that I've uploaded by either right-clicking and saving as, or simply clicking to download.
7) To obtain the cleaned-up file, please click here.
8) Be sure to place the kml file in your folder.
9) Now let's get back to the Excel file.
10) Open the Excel file, and paste the URL link in the first available cell in the first row.
11) Copy the worksheet, and paste it into a new worksheet entitled "Working Copy".
12) Delete the first three rows so that the first cell in each column contains a titles "creation date", "Time", "ward", and so on. (**NOTE:** We're always cleaning up tables we download from the Internet.)
13) Apply the filter and spend some time studying the data, especially the "call_description" and "call_type" columns.
14) The "ward" column will also be important because it's the one will use to merge in Fusion Tables with the kml file that contains the city of Ottawa's ward boundaries.

15) To execute a perfect match, we'll have to separate the actual ward numbers. To do this, we'll need Excel's "Text to Columns" option.



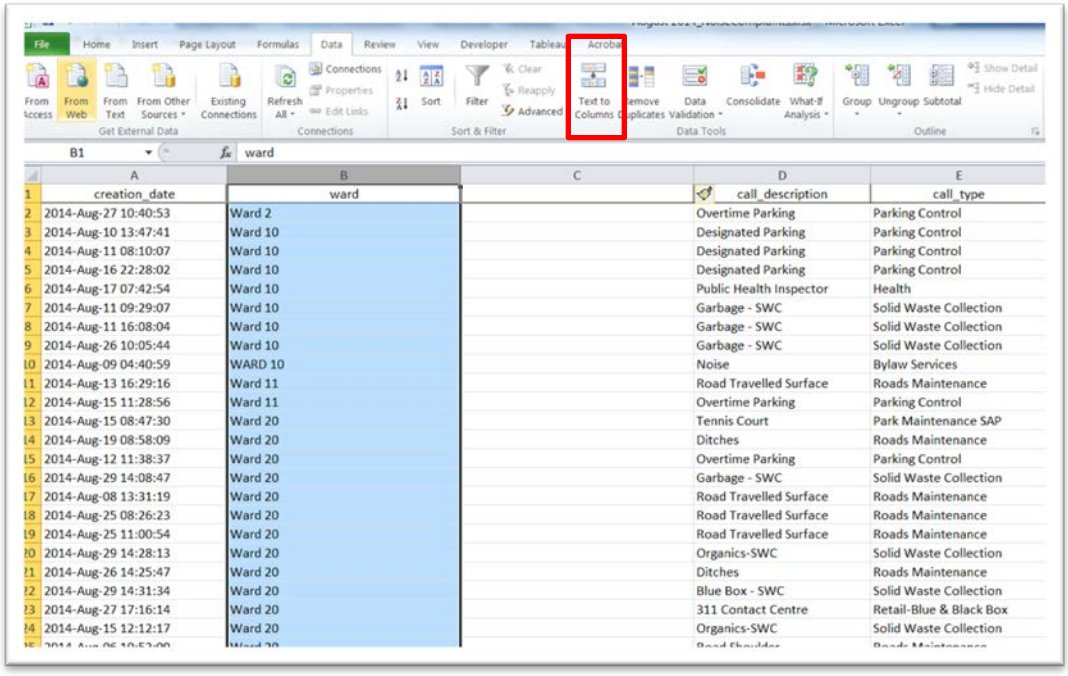
	A	B	C	D	E
1	creation_date	ward	call_description	call_type	maintenance_yard
2	2014-Aug-27 10:40:53	Ward 2	Overtime Parking	Parking Control	CYRVILLE ROADS
3	2014-Aug-10 13:47:41	Ward 10	Designated Parking	Parking Control	CONROY ROADS
4	2014-Aug-11 08:10:07	Ward 10	Designated Parking	Parking Control	CONROY ROADS
5	2014-Aug-16 22:28:02	Ward 10	Designated Parking	Parking Control	CONROY ROADS
6	2014-Aug-17 07:42:54	Ward 10	Public Health Inspector	Health	CONROY ROADS
7	2014-Aug-11 09:29:07	Ward 10	Garbage - SWC	Solid Waste Collection	Miller Waste - THURSDAY - Cal. B-APARTMENT Zone 4
8	2014-Aug-11 16:08:04	Ward 10	Garbage - SWC	Solid Waste Collection	Miller Waste - THURSDAY - Cal. B-APARTMENT Zone 4
9	2014-Aug-26 10:05:44	Ward 10	Garbage - SWC	Solid Waste Collection	Miller Waste - THURSDAY - Cal. B-APARTMENT Zone 4
10	2014-Aug-09 04:40:59	WARD 10	Noise	Bylaw Services	Priority - 2
11	2014-Aug-13 16:29:16	Ward 11	Road Travelled Surface	Roads Maintenance	CYRVILLE ROADS
12	2014-Aug-15 11:28:56	Ward 11	Overtime Parking	Parking Control	CYRVILLE ROADS
13	2014-Aug-15 08:47:30	Ward 20	Tennis Court	Park Maintenance SAP	TRIM
14	2014-Aug-19 08:58:09	Ward 20	Ditches	Roads Maintenance	RIDEAU VALLEY ROADS
15	2014-Aug-12 11:38:37	Ward 20	Overtime Parking	Parking Control	RIDEAU VALLEY ROADS

16) Insert a new column to the right of column B.



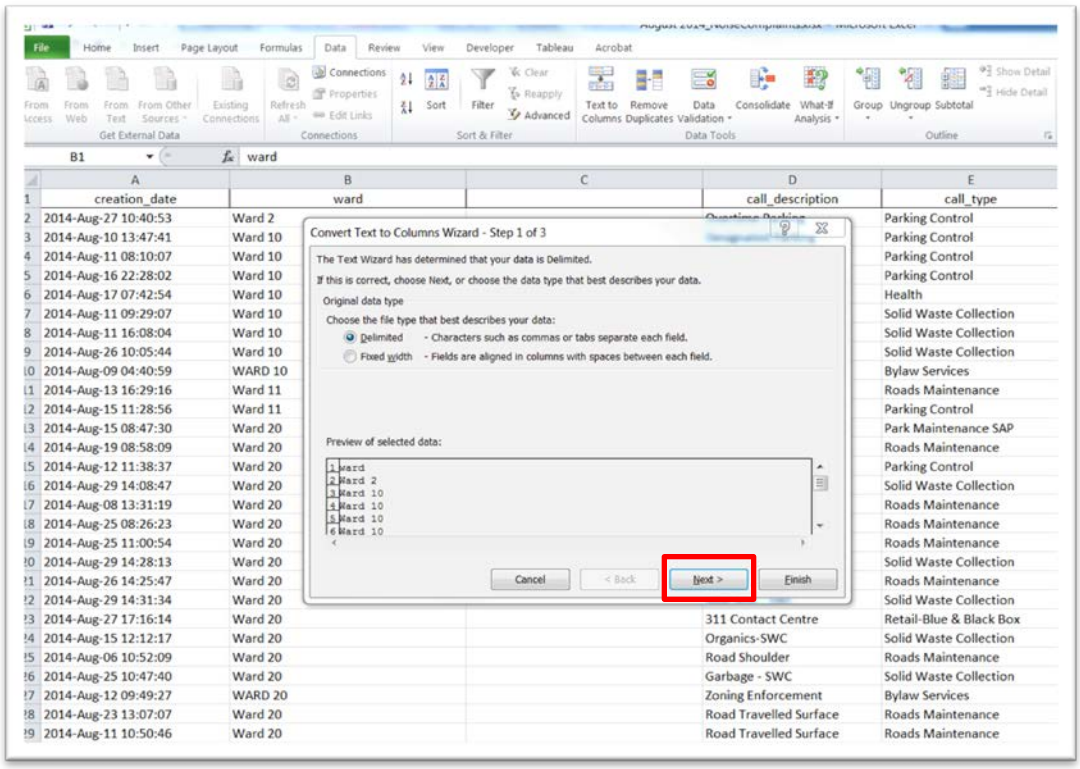
	A	B	C	D	E
1	creation_date	ward		call_description	call_type
2	2014-Aug-27 10:40:53	Ward 2		Overtime Parking	Parking Control
3	2014-Aug-10 13:47:41	Ward 10		Designated Parking	Parking Control
4	2014-Aug-11 08:10:07	Ward 10		Designated Parking	Parking Control
5	2014-Aug-16 22:28:02	Ward 10		Designated Parking	Parking Control
6	2014-Aug-17 07:42:54	Ward 10		Public Health Inspector	Health
7	2014-Aug-11 09:29:07	Ward 10		Garbage - SWC	Solid Waste Collection
8	2014-Aug-11 16:08:04	Ward 10		Garbage - SWC	Solid Waste Collection
9	2014-Aug-26 10:05:44	Ward 10		Garbage - SWC	Solid Waste Collection
10	2014-Aug-09 04:40:59	WARD 10		Noise	Bylaw Services
11	2014-Aug-13 16:29:16	Ward 11		Road Travelled Surface	Roads Maintenance
12	2014-Aug-15 11:28:56	Ward 11		Overtime Parking	Parking Control
13	2014-Aug-15 08:47:30	Ward 20		Tennis Court	Park Maintenance SAP
14	2014-Aug-19 08:58:09	Ward 20		Ditches	Roads Maintenance
15	2014-Aug-12 11:38:37	Ward 20		Overtime Parking	Parking Control
16	2014-Aug-29 14:08:47	Ward 20		Garbage - SWC	Solid Waste Collection
17	2014-Aug-08 13:31:19	Ward 20		Road Travelled Surface	Roads Maintenance
18	2014-Aug-25 08:26:23	Ward 20		Road Travelled Surface	Roads Maintenance
19	2014-Aug-25 11:00:54	Ward 20		Road Travelled Surface	Roads Maintenance
20	2014-Aug-29 14:28:13	Ward 20		Organics-SWC	Solid Waste Collection
21	2014-Aug-26 14:25:47	Ward 20		Ditches	Roads Maintenance
22	2014-Aug-29 14:31:34	Ward 20		Blue Box - SWC	Solid Waste Collection
23	2014-Aug-27 17:16:14	Ward 20		311 Contact Centre	Retail-Blue & Black Box

17) Return to column B, highlight it (as you can see in the image below), and select the “Text to Columns” option….



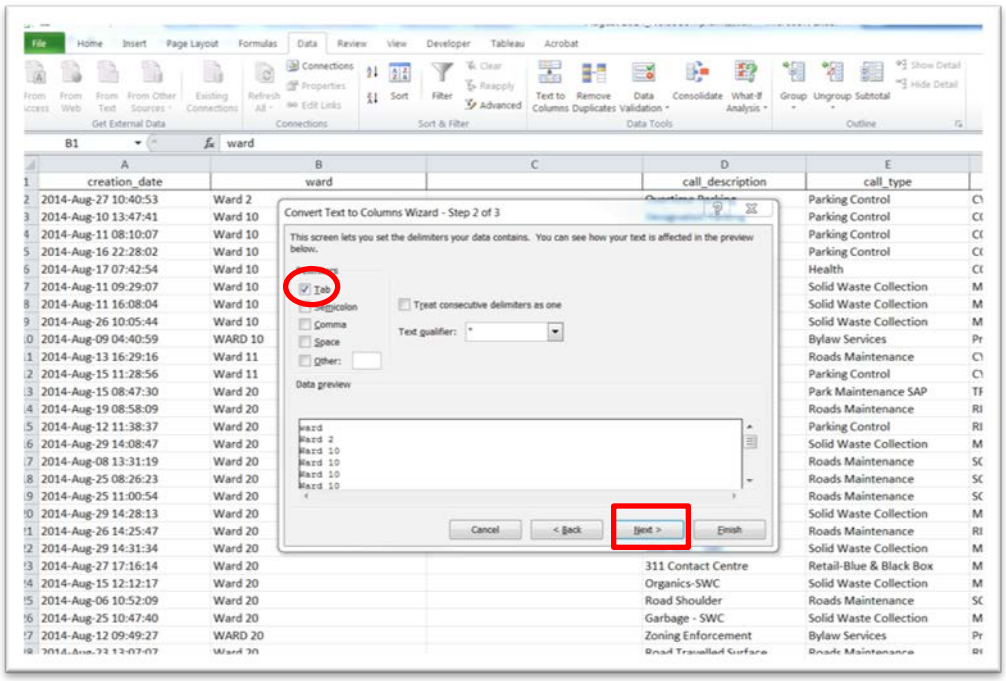
	A	B	C	D	E
1	creation_date	ward		call_description	call_type
2	2014-Aug-27 10:40:53	Ward 2		Overtime Parking	Parking Control
3	2014-Aug-10 13:47:41	Ward 10		Designated Parking	Parking Control
4	2014-Aug-11 08:10:07	Ward 10		Designated Parking	Parking Control
5	2014-Aug-16 22:28:02	Ward 10		Designated Parking	Parking Control
6	2014-Aug-17 07:42:54	Ward 10		Public Health Inspector	Health
7	2014-Aug-11 09:29:07	Ward 10		Garbage - SWC	Solid Waste Collection
8	2014-Aug-11 16:08:04	Ward 10		Garbage - SWC	Solid Waste Collection
9	2014-Aug-26 10:05:44	Ward 10		Garbage - SWC	Solid Waste Collection
10	2014-Aug-09 04:40:59	WARD 10		Noise	Bylaw Services
11	2014-Aug-13 16:29:16	Ward 11		Road Travelled Surface	Roads Maintenance
12	2014-Aug-15 11:28:56	Ward 11		Overtime Parking	Parking Control
13	2014-Aug-15 08:47:30	Ward 20		Tennis Court	Park Maintenance SAP
14	2014-Aug-19 08:58:09	Ward 20		Ditches	Roads Maintenance
15	2014-Aug-12 11:38:37	Ward 20		Overtime Parking	Parking Control
16	2014-Aug-29 14:08:47	Ward 20		Garbage - SWC	Solid Waste Collection
17	2014-Aug-08 13:31:19	Ward 20		Road Travelled Surface	Roads Maintenance
18	2014-Aug-25 08:26:23	Ward 20		Road Travelled Surface	Roads Maintenance
19	2014-Aug-25 11:00:54	Ward 20		Road Travelled Surface	Roads Maintenance
20	2014-Aug-29 14:28:13	Ward 20		Organics-SWC	Solid Waste Collection
21	2014-Aug-26 14:25:47	Ward 20		Ditches	Roads Maintenance
22	2014-Aug-29 14:31:34	Ward 20		Blue Box - SWC	Solid Waste Collection
23	2014-Aug-27 17:16:14	Ward 20		311 Contact Centre	Retail-Blue & Black Box
24	2014-Aug-15 12:12:17	Ward 20		Organics-SWC	Solid Waste Collection

18) ….. which will produce a Text to Columns Wizard.

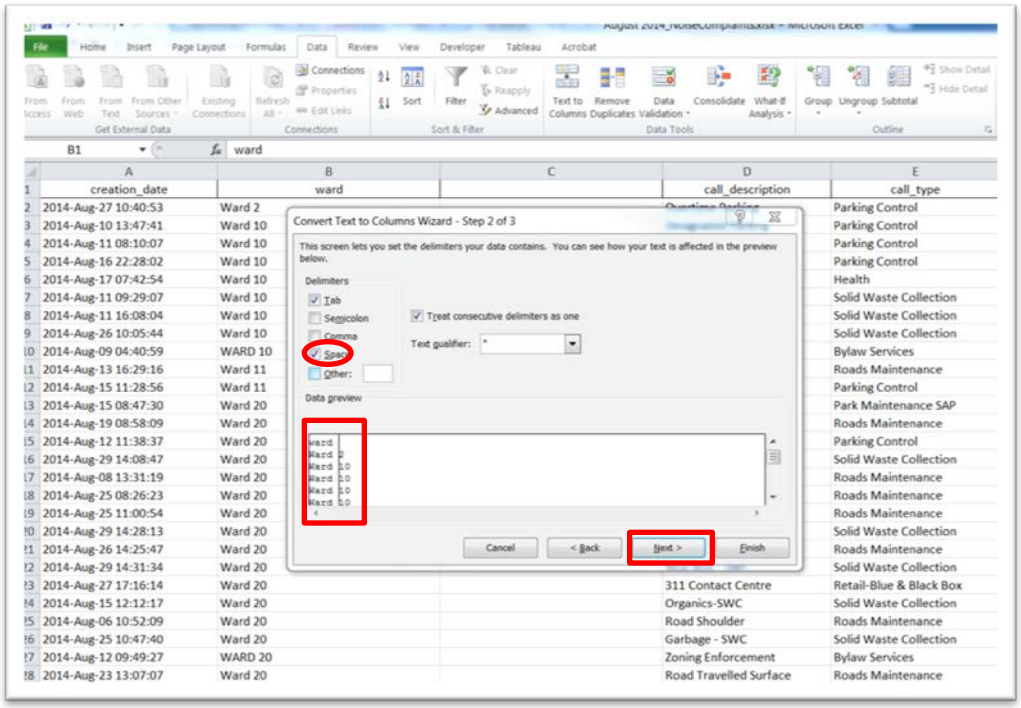


	A	B	C	D	E
1	creation_date	ward		call_description	call_type
2	2014-Aug-27 10:40:53	Ward 2			Parking Control
3	2014-Aug-10 13:47:41	Ward 10			Parking Control
4	2014-Aug-11 08:10:07	Ward 10			Parking Control
5	2014-Aug-16 22:28:02	Ward 10			Parking Control
6	2014-Aug-17 07:42:54	Ward 10			Health
7	2014-Aug-11 09:29:07	Ward 10			Solid Waste Collection
8	2014-Aug-11 16:08:04	Ward 10			Solid Waste Collection
9	2014-Aug-26 10:05:44	Ward 10			Solid Waste Collection
10	2014-Aug-09 04:40:59	WARD 10			Bylaw Services
11	2014-Aug-13 16:29:16	Ward 11			Roads Maintenance
12	2014-Aug-15 11:28:56	Ward 11			Parking Control
13	2014-Aug-15 08:47:30	Ward 20			Park Maintenance SAP
14	2014-Aug-19 08:58:09	Ward 20			Roads Maintenance
15	2014-Aug-12 11:38:37	Ward 20			Parking Control
16	2014-Aug-29 14:08:47	Ward 20			Solid Waste Collection
17	2014-Aug-08 13:31:19	Ward 20			Roads Maintenance
18	2014-Aug-25 08:26:23	Ward 20			Roads Maintenance
19	2014-Aug-25 11:00:54	Ward 20			Roads Maintenance
20	2014-Aug-29 14:28:13	Ward 20			Solid Waste Collection
21	2014-Aug-26 14:25:47	Ward 20			Roads Maintenance
22	2014-Aug-29 14:31:34	Ward 20			Solid Waste Collection
23	2014-Aug-27 17:16:14	Ward 20		311 Contact Centre	Retail-Blue & Black Box
24	2014-Aug-15 12:12:17	Ward 20		Organics-SWC	Solid Waste Collection
25	2014-Aug-06 10:52:09	Ward 20		Road Shoulder	Roads Maintenance
26	2014-Aug-25 10:47:40	Ward 20		Garbage - SWC	Solid Waste Collection
27	2014-Aug-12 09:49:27	WARD 20		Zoning Enforcement	Bylaw Services
28	2014-Aug-23 13:07:07	Ward 20		Road Travelled Surface	Roads Maintenance
29	2014-Aug-11 10:50:46	Ward 20		Road Travelled Surface	Roads Maintenance

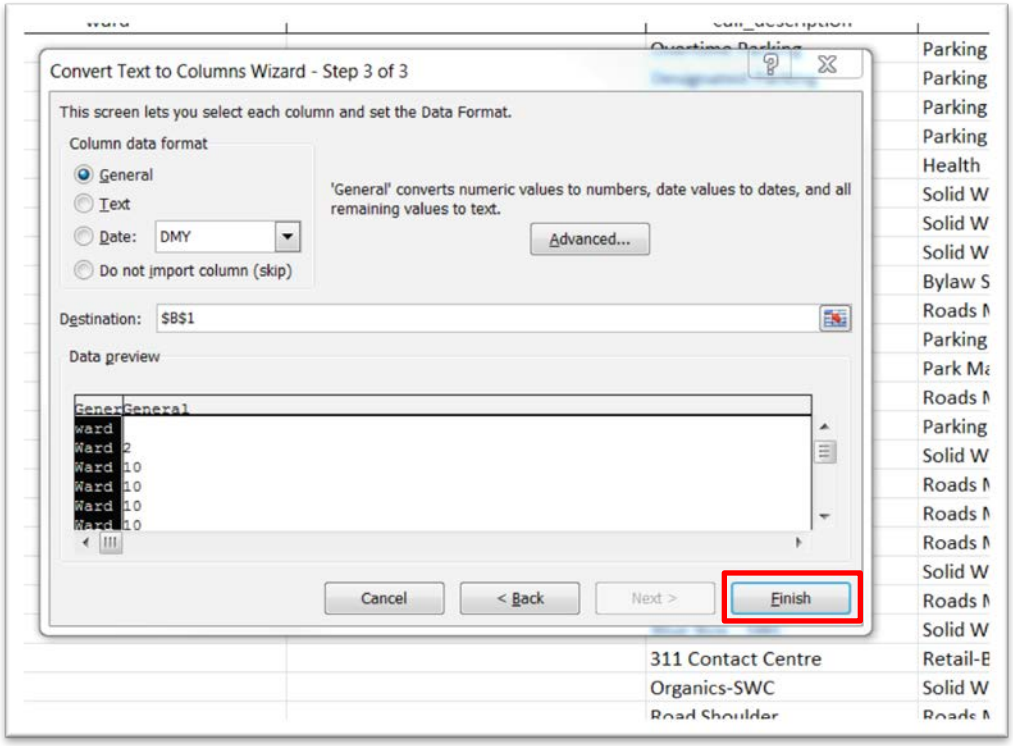
19) Select the “Next” tab.

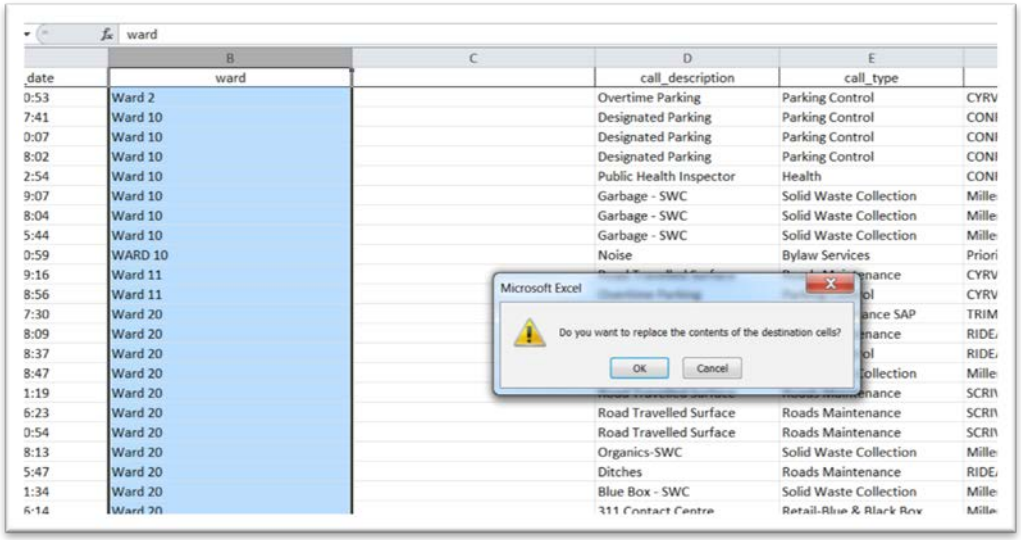


20) You may recall from working with the elections data, that Excel’s import Wizard defaults to the “Tab” delimiter. The delimiter in this case – that is, the character that separates the last letter in the word “Ward” from the number – is a space. Select the “Space” delimiter. (NOTE: It’s not necessary to de-select the Tab delimiter).



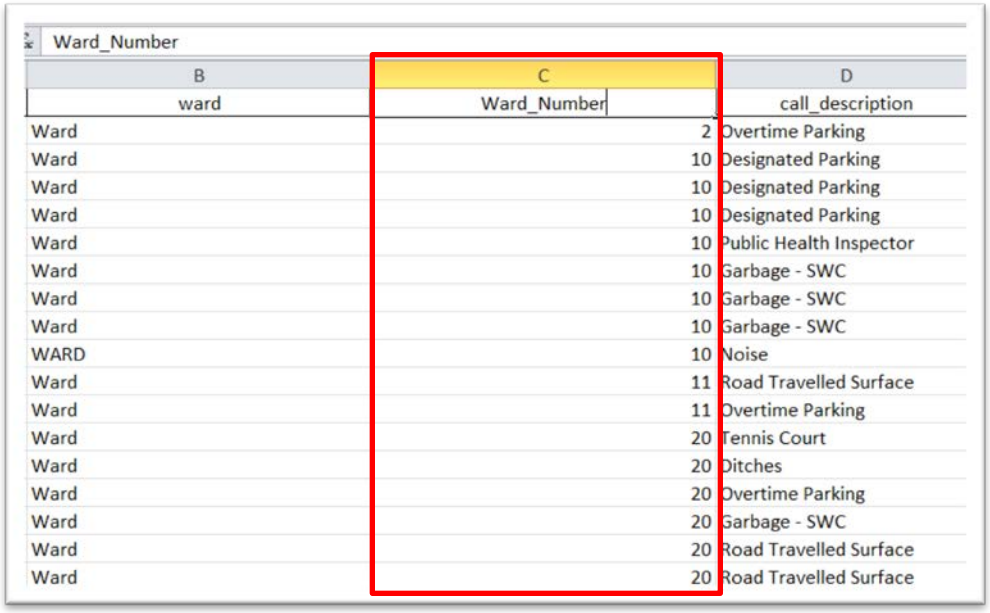
21) Use the vertical scroll bar to the right to make sure that the numbers are on the right side of the vertical line.
22) Select the “Next” tab, and then “Finish”.





23) Excel simply wants to know if you want to place the numbers, or “contents”, in the “destination” cells, which in this case are the empty cells in column C.

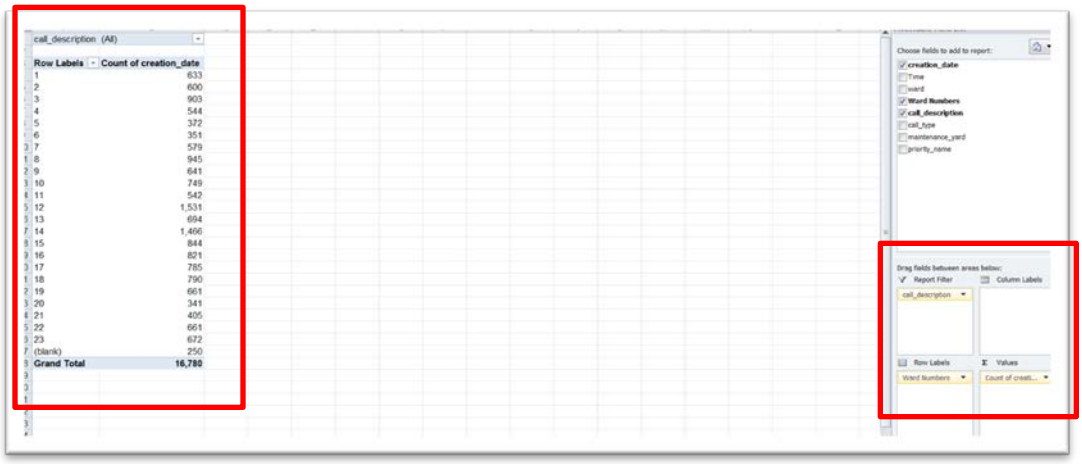
24) Select OK, and then Name the new file “Ward_Number”.



Ward_Number

B	C	D
ward	Ward_Number	call_description
Ward	2	Overtime Parking
Ward	10	Designated Parking
Ward	10	Designated Parking
Ward	10	Designated Parking
Ward	10	Public Health Inspector
Ward	10	Garbage - SWC
Ward	10	Garbage - SWC
Ward	10	Garbage - SWC
WARD	10	Noise
Ward	11	Road Travelled Surface
Ward	11	Overtime Parking
Ward	20	Tennis Court
Ward	20	Ditches
Ward	20	Overtime Parking
Ward	20	Garbage - SWC
Ward	20	Road Travelled Surface
Ward	20	Road Travelled Surface

25) Now let’s create a pivot table that groups the “Ward_Numbers” column in the “Row Labels” section, the “creation date” (which we’ll use as an ID field) in the “Values” section, and the “call_description” in the “Report Filter” section.



26) From the Report Filter, de-select all the options, choose “Noise”, and then sort the “Count of Creation_date” (we can change the name later) in descending order.

	A	B
1	call_description	Noise
2		
3	**Row Labels**	**Count of creation_date**
4	12	239
5	14	150
6	17	76
7	16	66
8	8	61
9	15	59
10	13	53
11	23	51
12	3	51
13	1	49
14	9	44
15	18	43
16	22	41
17	10	41
18	2	38
19	7	35
20	11	34
21	19	26
22	21	19
23	6	18
24	20	17
25	4	16
26	5	14
27	**Grand Total**	**1,241**

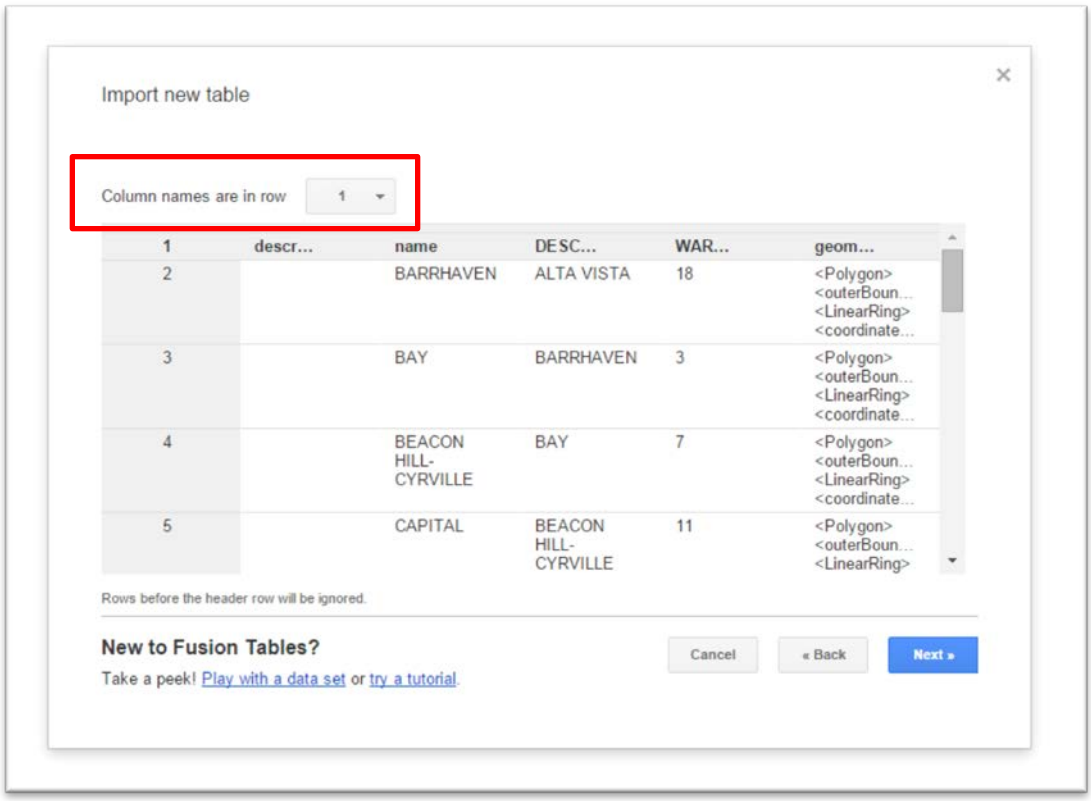
27) This means that ward 12 (Rideau-Vanier) had the highest number of noise complaints in August of 2014. No surprise, given that it’s probably the ward with the highest number of bars per capita. This is the table we will join to the ward boundary file that also has a column with ward numbers. But first we’ll need to strip the values from this pivot table, leaving behind the formula Excel used to create it.
28) Open a new worksheet.
29) Copy this pivot table, and use Excel’s “paste-special” function to place your table into the new worksheet. Your table should look like this. If you obtain a dialog box with a range of options, select “values”. That is, you only want to paste the pivot table’s values, not the underlying formula. If you use the regular paste option, then you’ll just end pasting the pivot table, which

Google's Fusion Tables won't be able to upload.

	A	B	C
1	Ward_number	Count of creation_date	
2	12	239	
3	14	150	
4	17	76	
5	16	66	
6	8	61	
7	15	59	
8	13	53	
9	3	51	
10	23	51	
11	1	49	
12	9	44	
13	18	43	
14	10	41	
15	22	41	
16	2	38	
17	7	35	
18	11	34	
19	19	26	
20	21	19	
21	6	18	
22	20	17	
23	4	16	
24	5	14	
25			

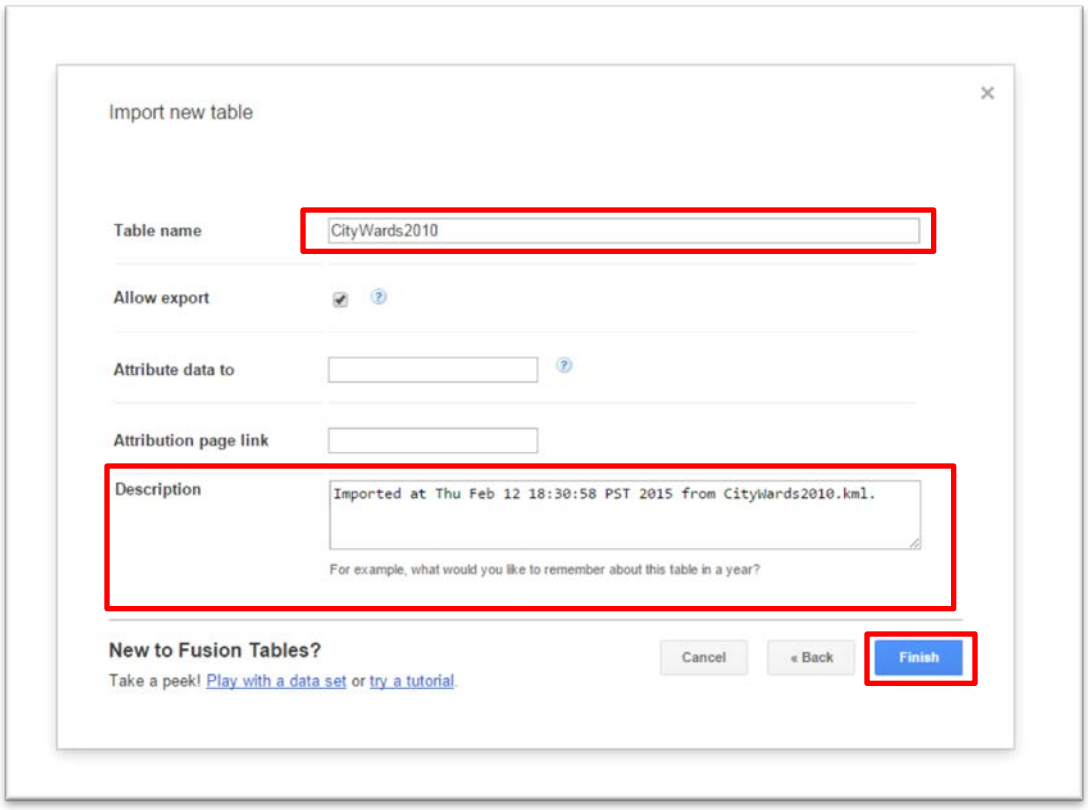
30) Here, we can use more meaningful titles to rename the fields.
31) Ward_number is okay. Let's change column B to "Noise_Complaints".
32) Name the file something like "NoiseComplaintsAugust2014"
33) Now let's upload this file to your Google Drive using the Fusion Table app.
34) If you don't have the app, on your Google Drive, you'll have to upload one by typing the term "Fusion Tables" into the search engine.

35) Upload the kml file that we saved earlier.



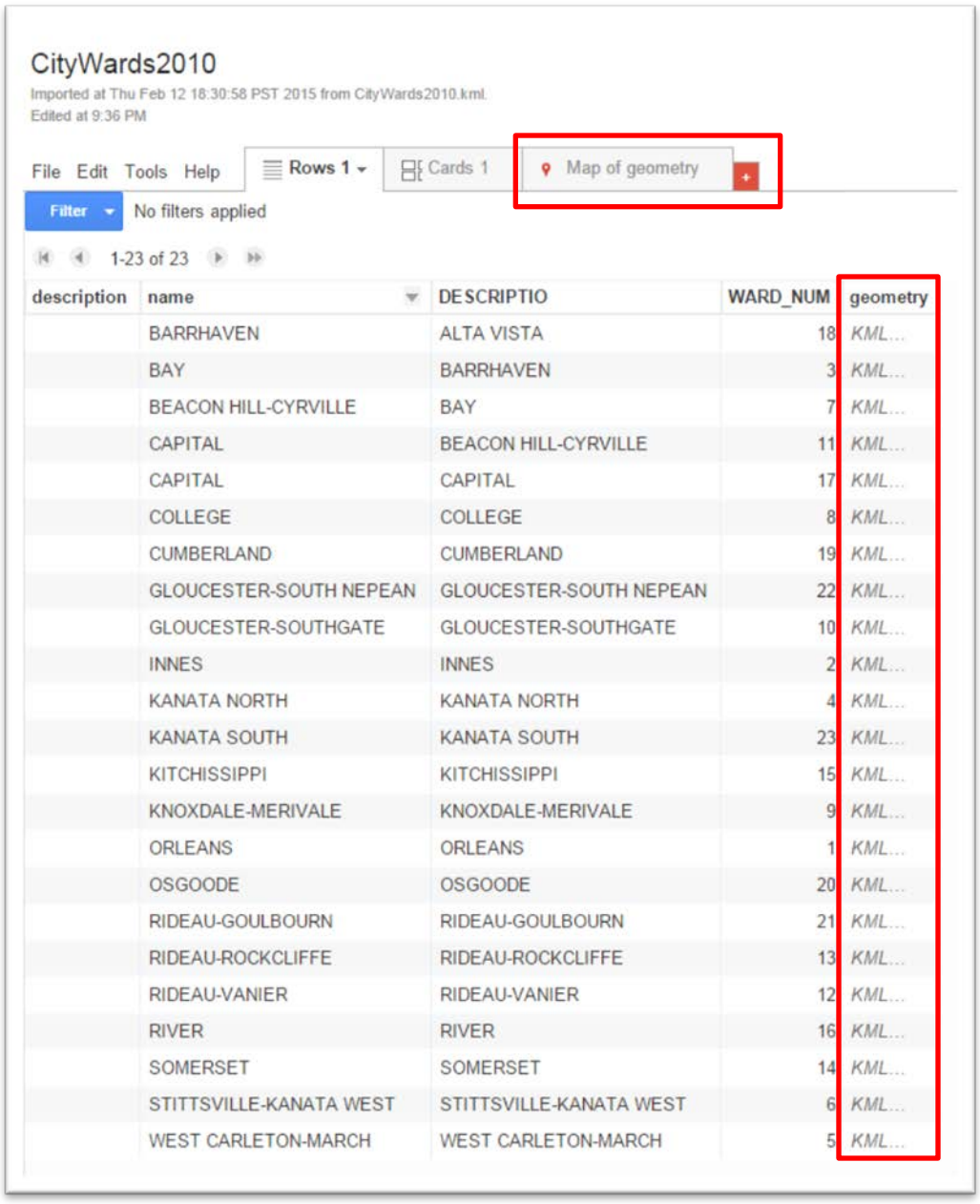
36) Fusion Tables provides the option of selecting the row which will contain the columns' titles. Because we've done all the cleaning in Excel – a good habit to develop – we can leave the first

row as is. Select the “Next” tab.



37) This dialog box contains a place for the table name, which you can replace with something better. “CityWards2010” is fine. The “Description” box contains information about the time you imported the file. Here, too, you can change or add information. You’ll be the only one who sees

the information. Again, let's leave it as is, and select the "Finish" tab.



CityWards2010

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Edited at 9:36 PM

File Edit Tools Help | Rows 1 | Cards 1 | Map of geometry

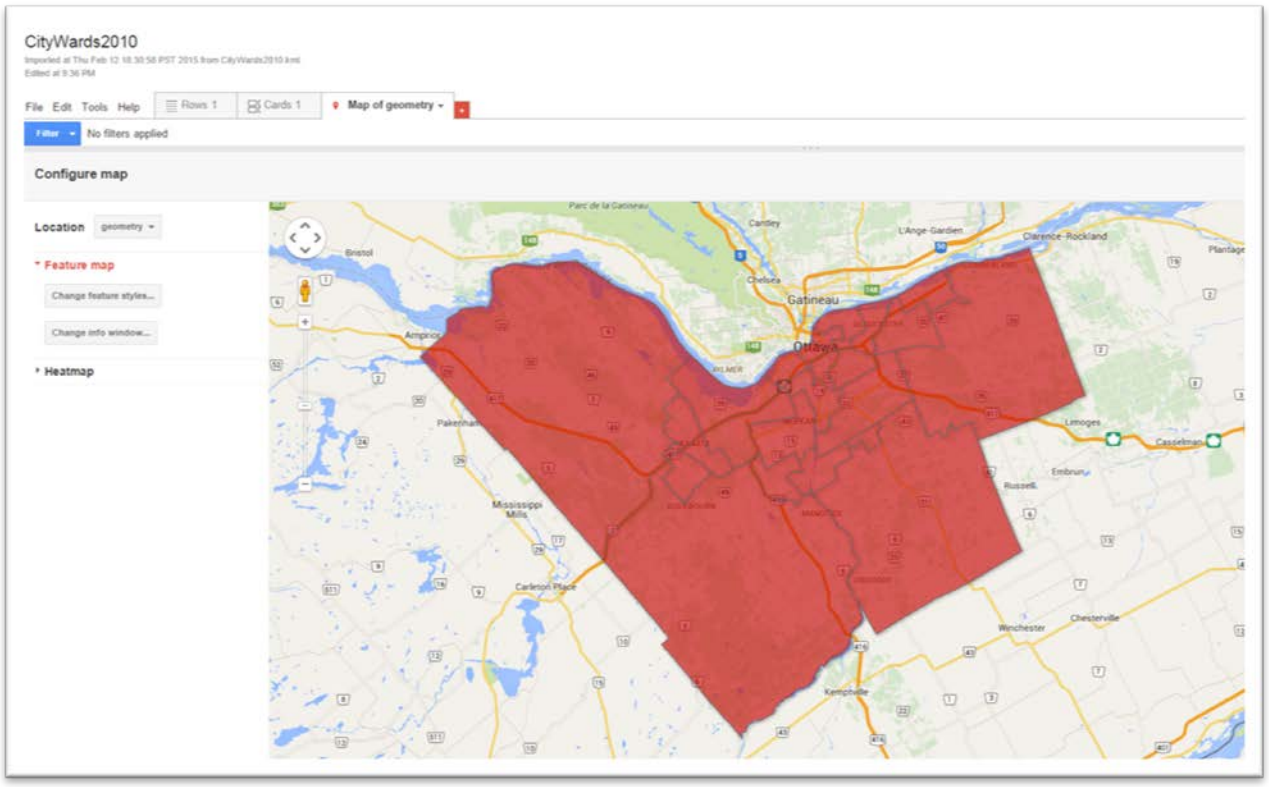
Filter | No filters applied

1-23 of 23

description	name	DESCRIPTIO	WARD_NUM	geometry
	BARRHAVEN	ALTA VISTA	18	KML...
	BAY	BARRHAVEN	3	KML...
	BEACON HILL-CYRVILLE	BAY	7	KML...
	CAPITAL	BEACON HILL-CYRVILLE	11	KML...
	CAPITAL	CAPITAL	17	KML...
	COLLEGE	COLLEGE	8	KML...
	CUMBERLAND	CUMBERLAND	19	KML...
	GLOUCESTER-SOUTH NEPEAN	GLOUCESTER-SOUTH NEPEAN	22	KML...
	GLOUCESTER-SOUTHGATE	GLOUCESTER-SOUTHGATE	10	KML...
	INNES	INNES	2	KML...
	KANATA NORTH	KANATA NORTH	4	KML...
	KANATA SOUTH	KANATA SOUTH	23	KML...
	KITCHISSIPPI	KITCHISSIPPI	15	KML...
	KNOXDALE-MERIVALE	KNOXDALE-MERIVALE	9	KML...
	ORLEANS	ORLEANS	1	KML...
	OSGOODE	OSGOODE	20	KML...
	RIDEAU-GOULBOURN	RIDEAU-GOULBOURN	21	KML...
	RIDEAU-ROCKCLIFFE	RIDEAU-ROCKCLIFFE	13	KML...
	RIDEAU-VANIER	RIDEAU-VANIER	12	KML...
	RIVER	RIVER	16	KML...
	SOMERSET	SOMERSET	14	KML...
	STITTSVILLE-KANATA WEST	STITTSVILLE-KANATA WEST	6	KML...
	WEST CARLETON-MARCH	WEST CARLETON-MARCH	5	KML...

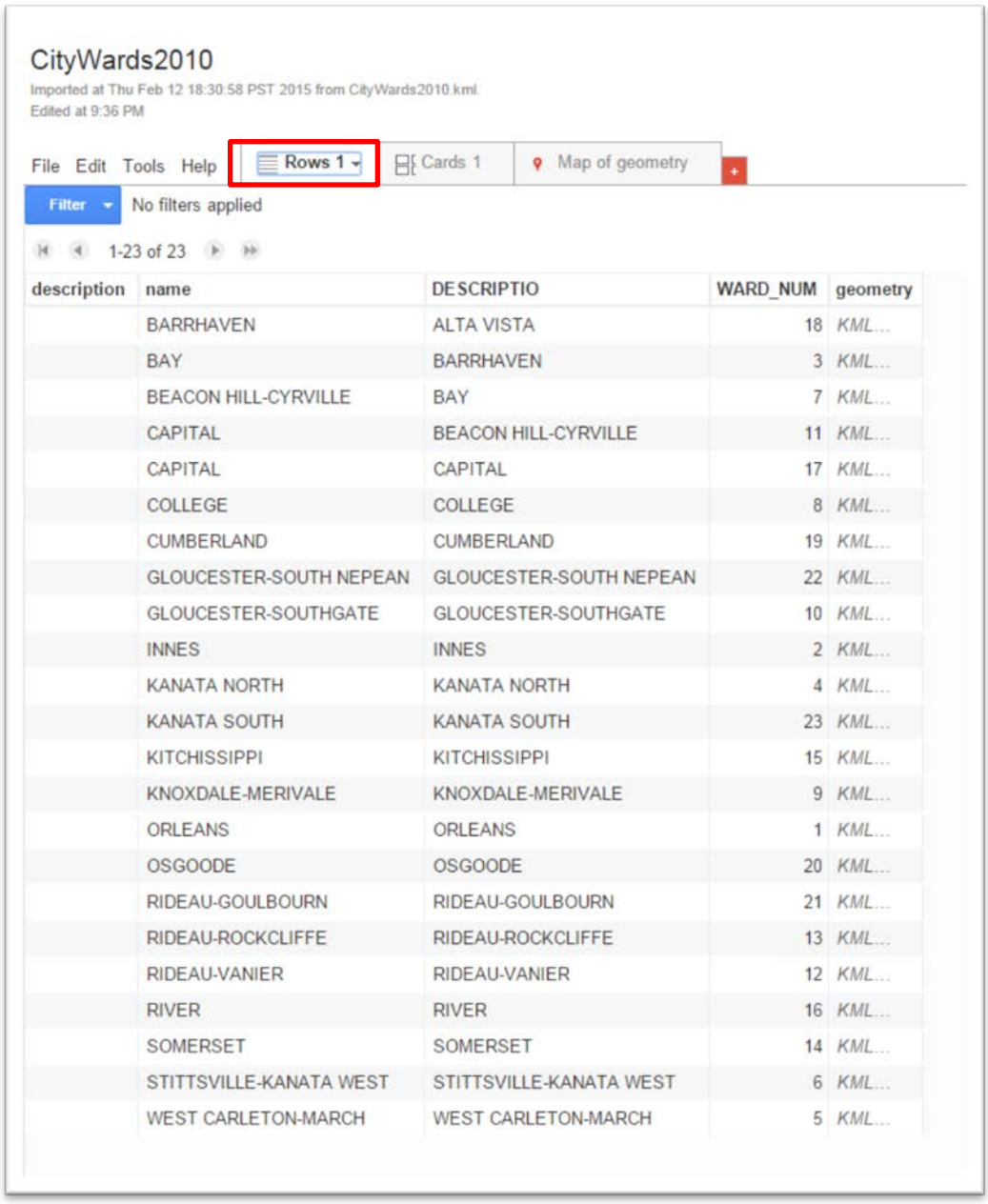
38) The "Geometry" field contains the geographic information for the ward boundaries, or polygons, that Fusion Tables will use to place them on a map. To see the map, click on the "Map of

Geometry" tab at the table's top right corner.



39) We can see the ward boundaries. As for the colour, it's generic and can be changed. Clicking on a ward boundary will produce a pop-up box with the information contained in the underlying table.
40) Now we'll merge this boundary file with the noise-complaint file we uploaded to our Google Drive.

41) Return to the ward boundary's table view by selecting the "Rows" tab at the top left.



CityWards2010

Imported at Thu Feb 12 18:30:58 PST 2015 from CityWards2010.kml.
Edited at 9:36 PM

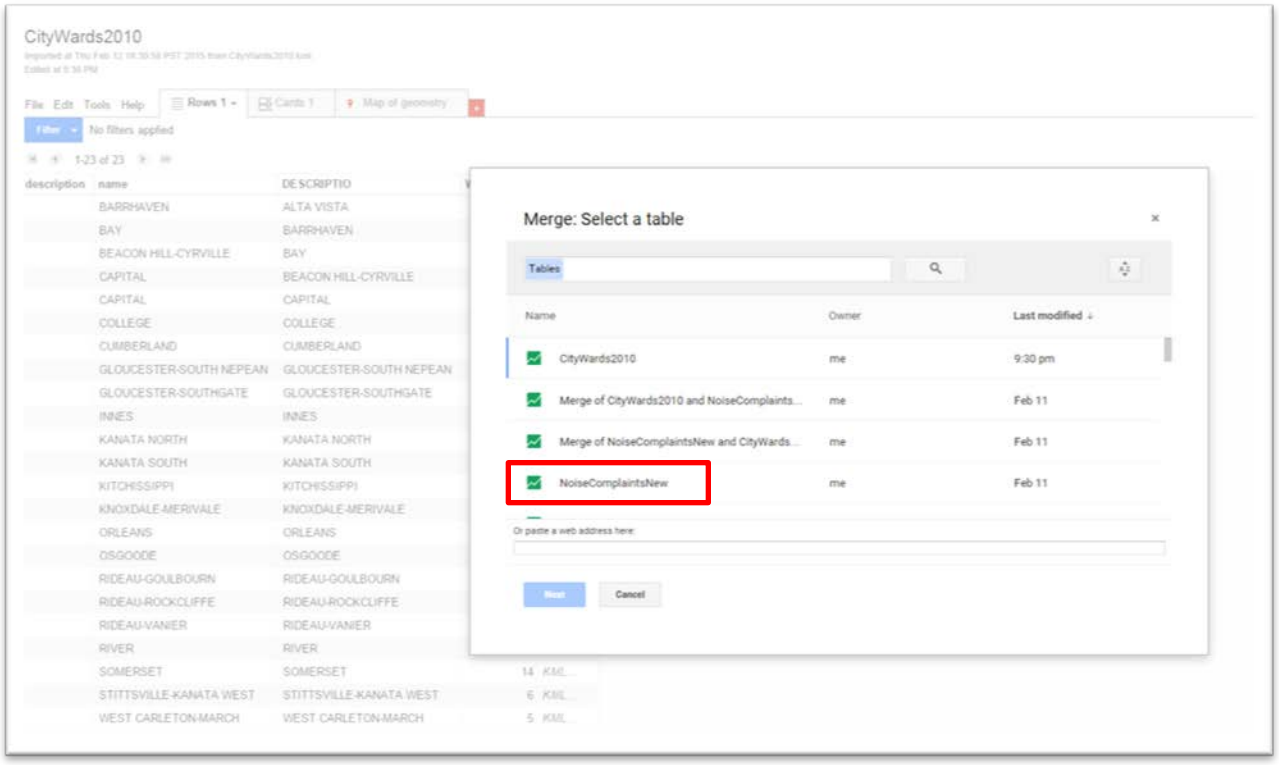
File Edit Tools Help | Rows 1 | Cards 1 | Map of geometry

Filter | No filters applied

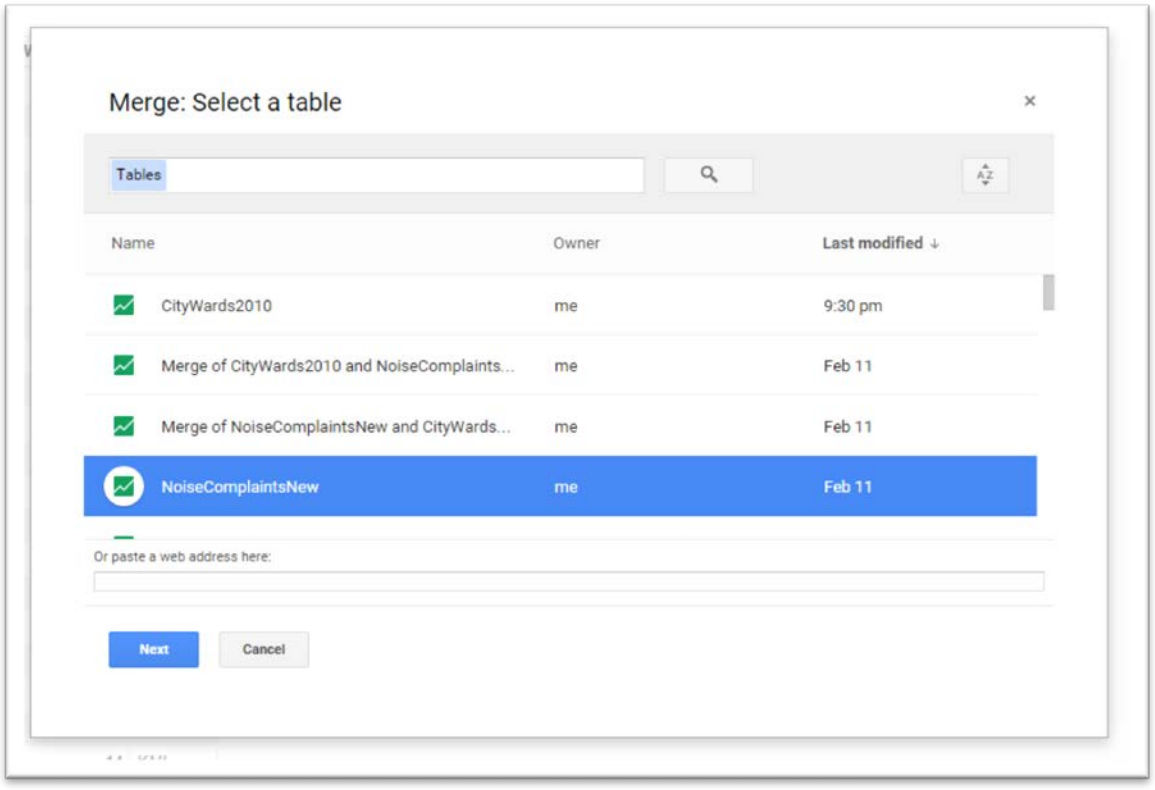
1-23 of 23

description	name	DESCRIPTIO	WARD_NUM	geometry
	BARRHAVEN	ALTA VISTA	18	KML...
	BAY	BARRHAVEN	3	KML...
	BEACON HILL-CYRVILLE	BAY	7	KML...
	CAPITAL	BEACON HILL-CYRVILLE	11	KML...
	CAPITAL	CAPITAL	17	KML...
	COLLEGE	COLLEGE	8	KML...
	CUMBERLAND	CUMBERLAND	19	KML...
	GLOUCESTER-SOUTH NEPEAN	GLOUCESTER-SOUTH NEPEAN	22	KML...
	GLOUCESTER-SOUTHGATE	GLOUCESTER-SOUTHGATE	10	KML...
	INNES	INNES	2	KML...
	KANATA NORTH	KANATA NORTH	4	KML...
	KANATA SOUTH	KANATA SOUTH	23	KML...
	KITCHISSIPPI	KITCHISSIPPI	15	KML...
	KNOXDALE-MERIVALE	KNOXDALE-MERIVALE	9	KML...
	ORLEANS	ORLEANS	1	KML...
	OSGOODE	OSGOODE	20	KML...
	RIDEAU-GOULBOURN	RIDEAU-GOULBOURN	21	KML...
	RIDEAU-ROCKCLIFFE	RIDEAU-ROCKCLIFFE	13	KML...
	RIDEAU-VANIER	RIDEAU-VANIER	12	KML...
	RIVER	RIVER	16	KML...
	SOMERSET	SOMERSET	14	KML...
	STITTSVILLE-KANATA WEST	STITTSVILLE-KANATA WEST	6	KML...
	WEST CARLETON-MARCH	WEST CARLETON-MARCH	5	KML...

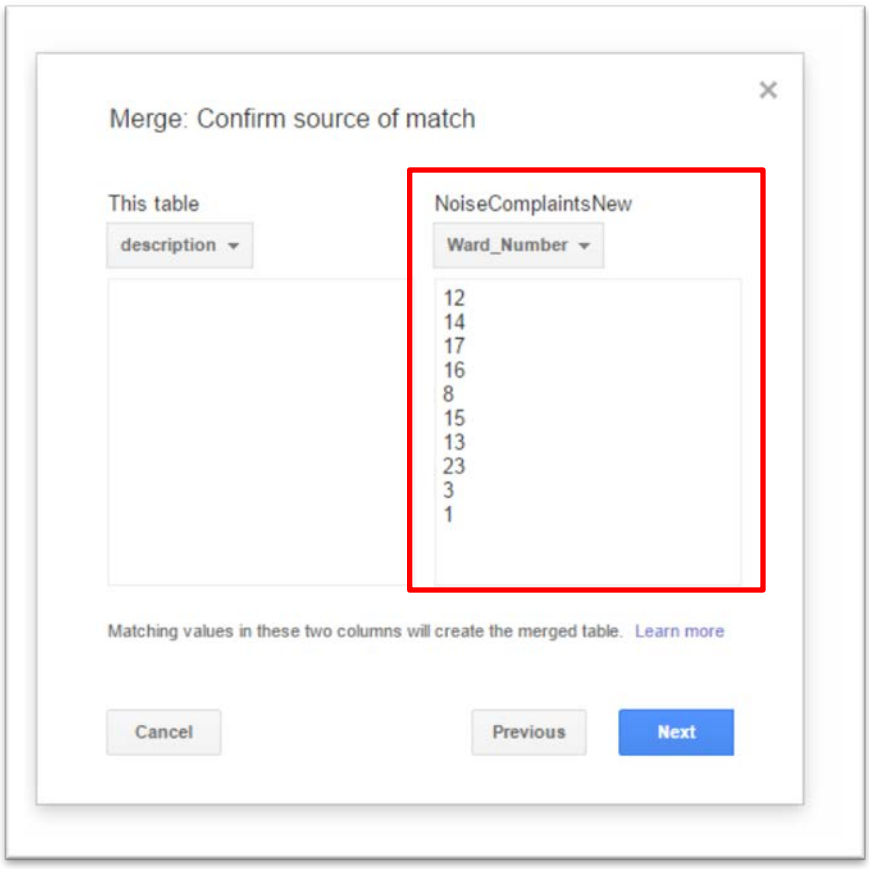
42) Go to “File”, and select the “Merge” option, which produces a “Merge” Select a table” dialog box.



43) Select the noise complaint table, or whatever you ended up naming it.

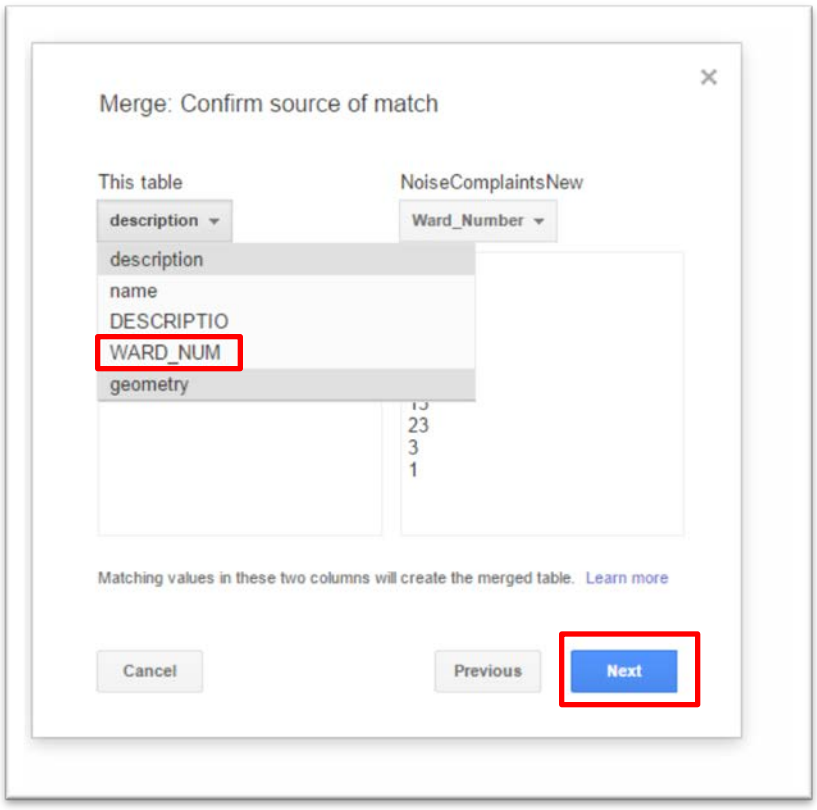


44) Select the “Next” tab.

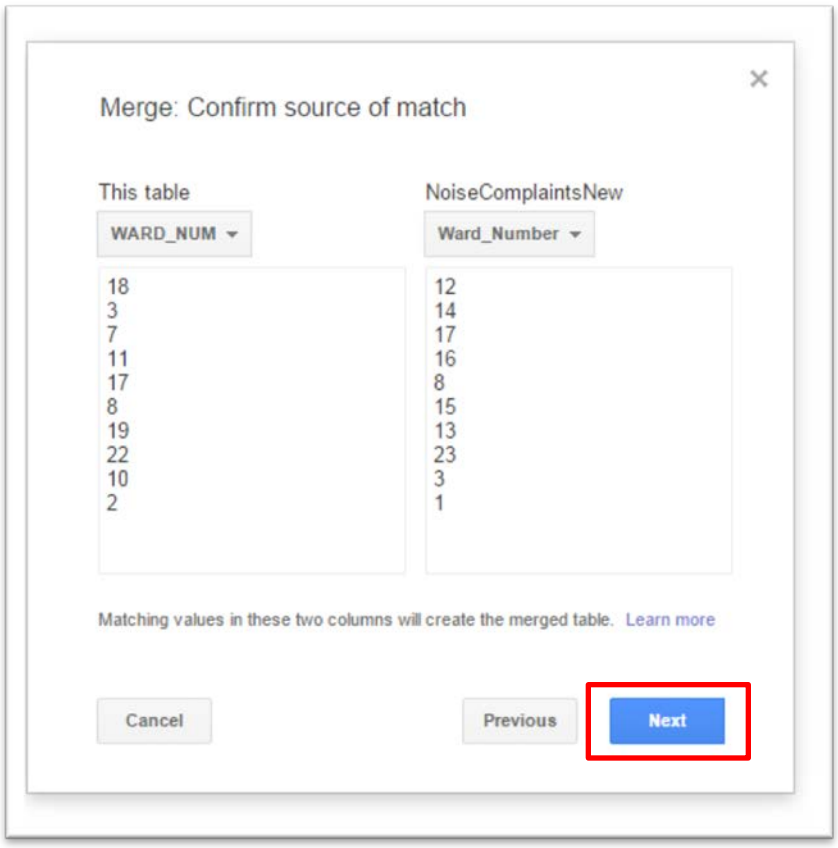


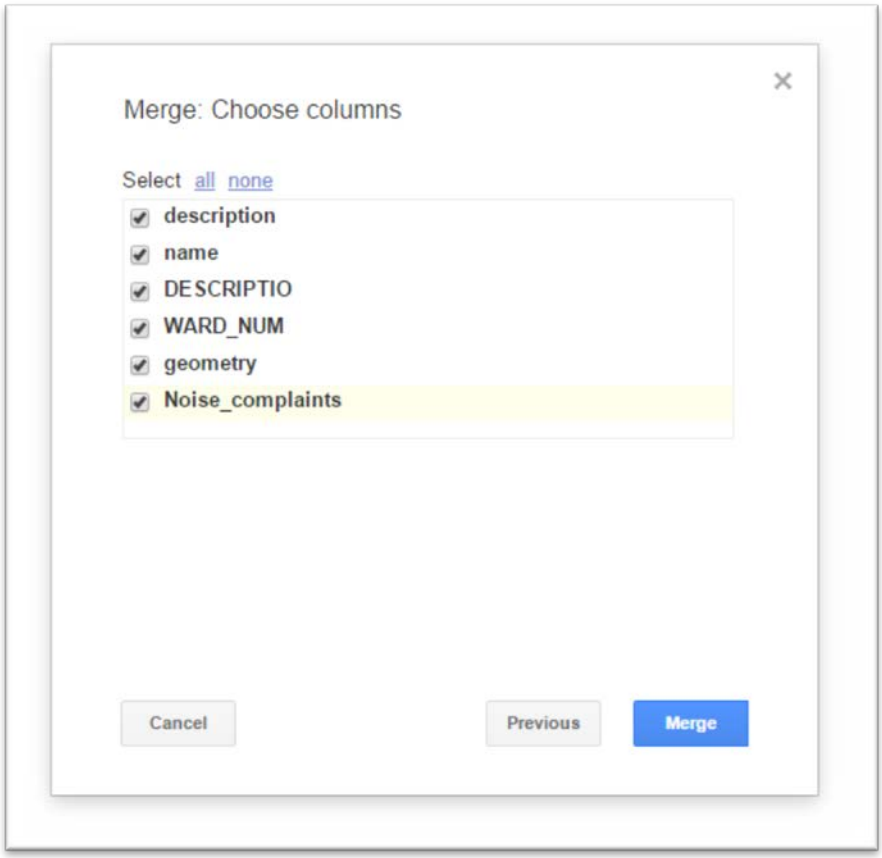
45) Ward_Number is the first column in our table, which also happens to contain the values we want use in the merge. If the values we wanted happened to be in another column, then we’d choose it from the drop-down menu obtained by clicking on the arrow to the right of “Ward_Number”.

46) Select the arrow to the right of the “description” tab.



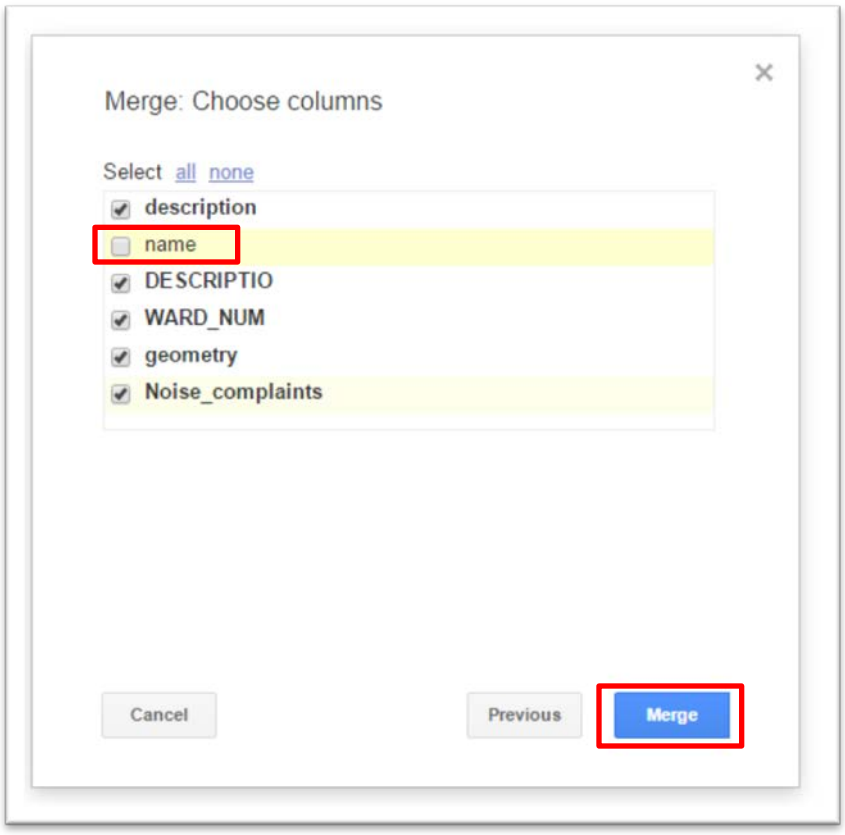
47) Select “WARD_NUM”, then “Next”.

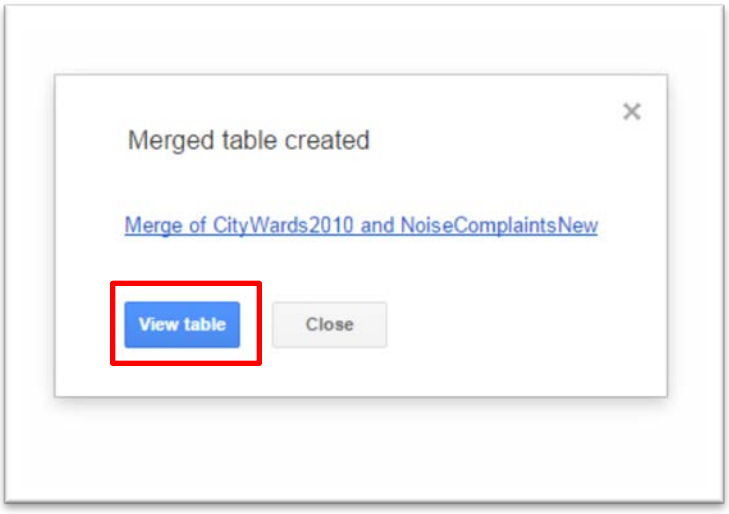


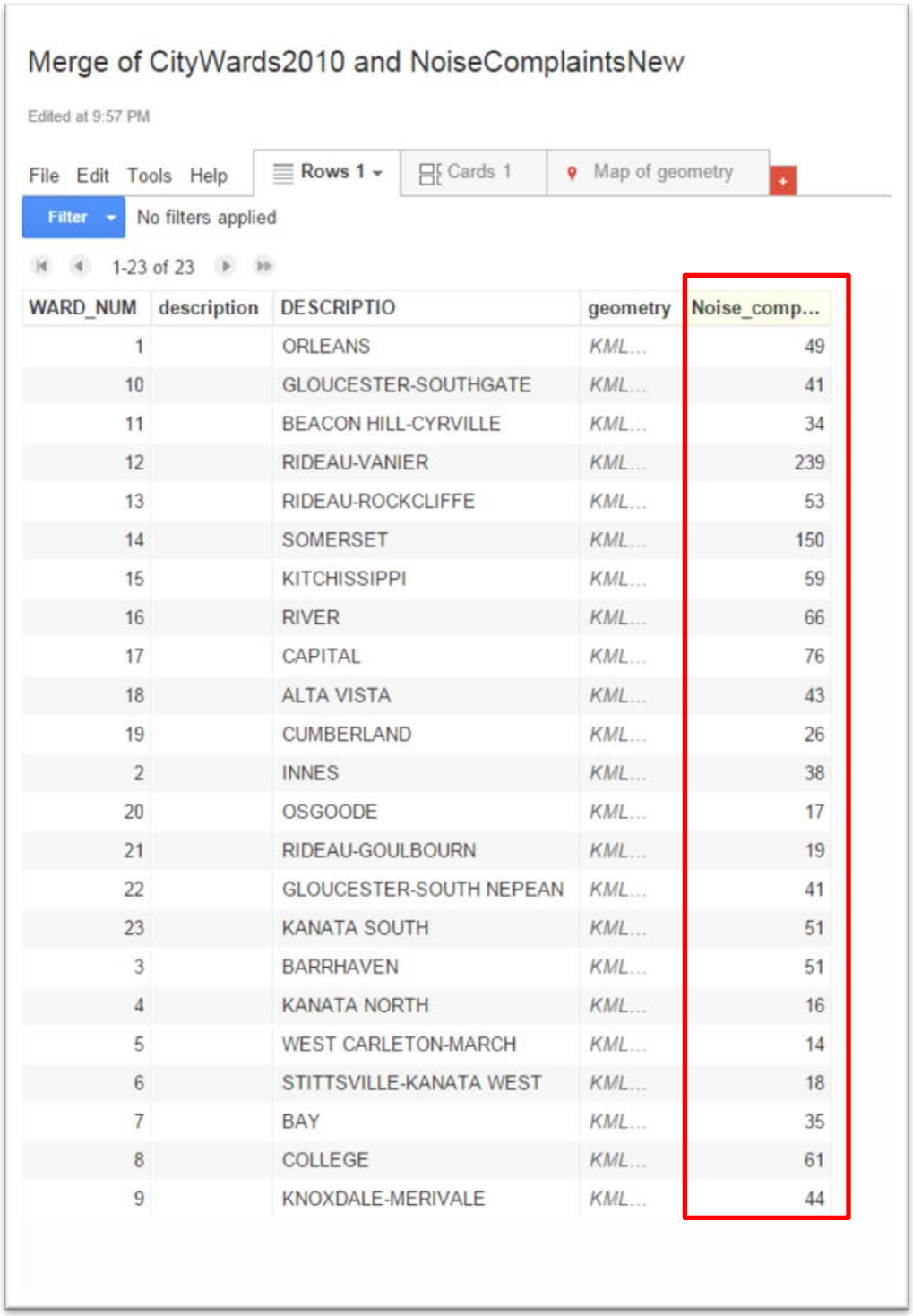


48) We have the option of de-selecting certain fields. De-select the “name” field, because it contains inaccurate information that will skew the results.

49) Select “Merge”, and then “View table”.




Merged table created
Merge of CityWards2010 and NoiseComplaintsNew
View table
Close



Merge of CityWards2010 and NoiseComplaintsNew

Edited at 9:57 PM

File Edit Tools Help | Rows 1 | Cards 1 | Map of geometry

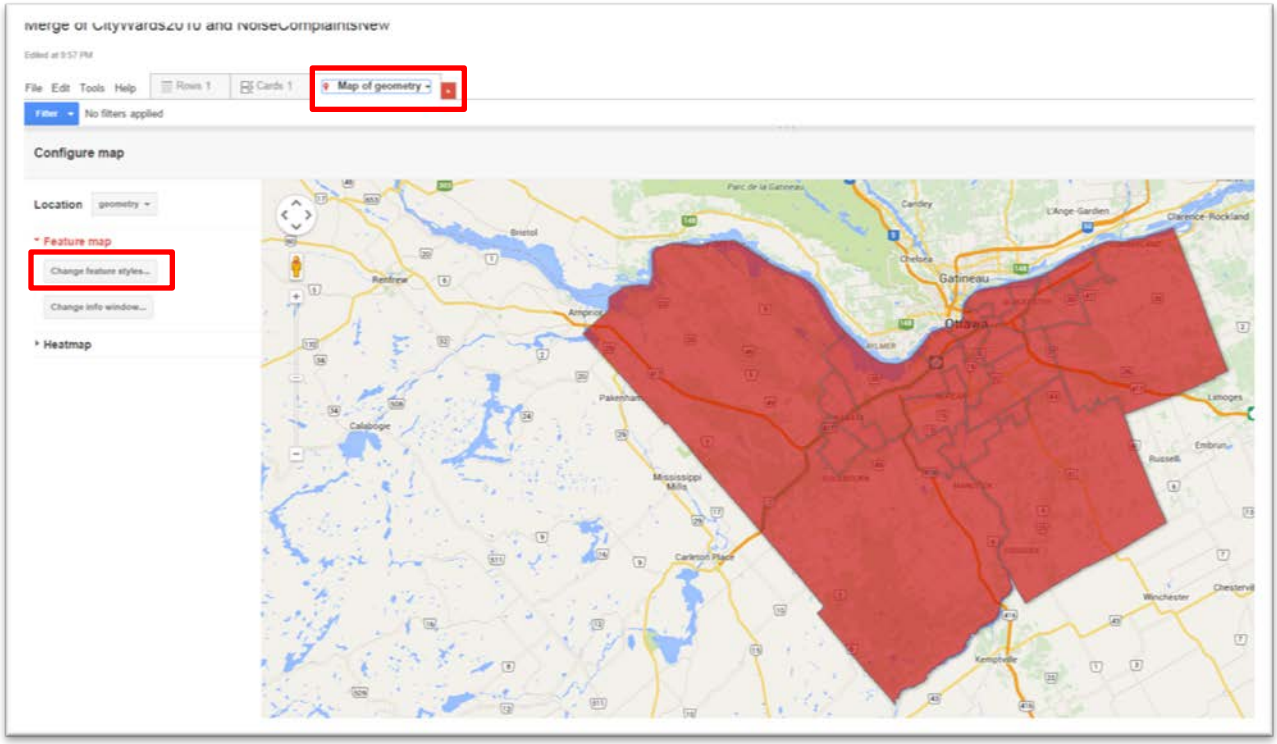
Filter | No filters applied

1-23 of 23

WARD_NUM	description	DESCRIPTIO	geometry	Noise_comp...
1		ORLEANS	KML...	49
10		GLOUCESTER-SOUTHGATE	KML...	41
11		BEACON HILL-CYRVILLE	KML...	34
12		RIDEAU-VANIER	KML...	239
13		RIDEAU-ROCKCLIFFE	KML...	53
14		SOMERSET	KML...	150
15		KITCHISSIPPI	KML...	59
16		RIVER	KML...	66
17		CAPITAL	KML...	76
18		ALTA VISTA	KML...	43
19		CUMBERLAND	KML...	26
2		INNES	KML...	38
20		OSGOODE	KML...	17
21		RIDEAU-GOULBOURN	KML...	19
22		GLOUCESTER-SOUTH NEPEAN	KML...	41
23		KANATA SOUTH	KML...	51
3		BARRHAVEN	KML...	51
4		KANATA NORTH	KML...	16
5		WEST CARLETON-MARCH	KML...	14
6		STITTSVILLE-KANATA WEST	KML...	18
7		BAY	KML...	35
8		COLLEGE	KML...	61
9		KNOXDALE-MERIVALE	KML...	44

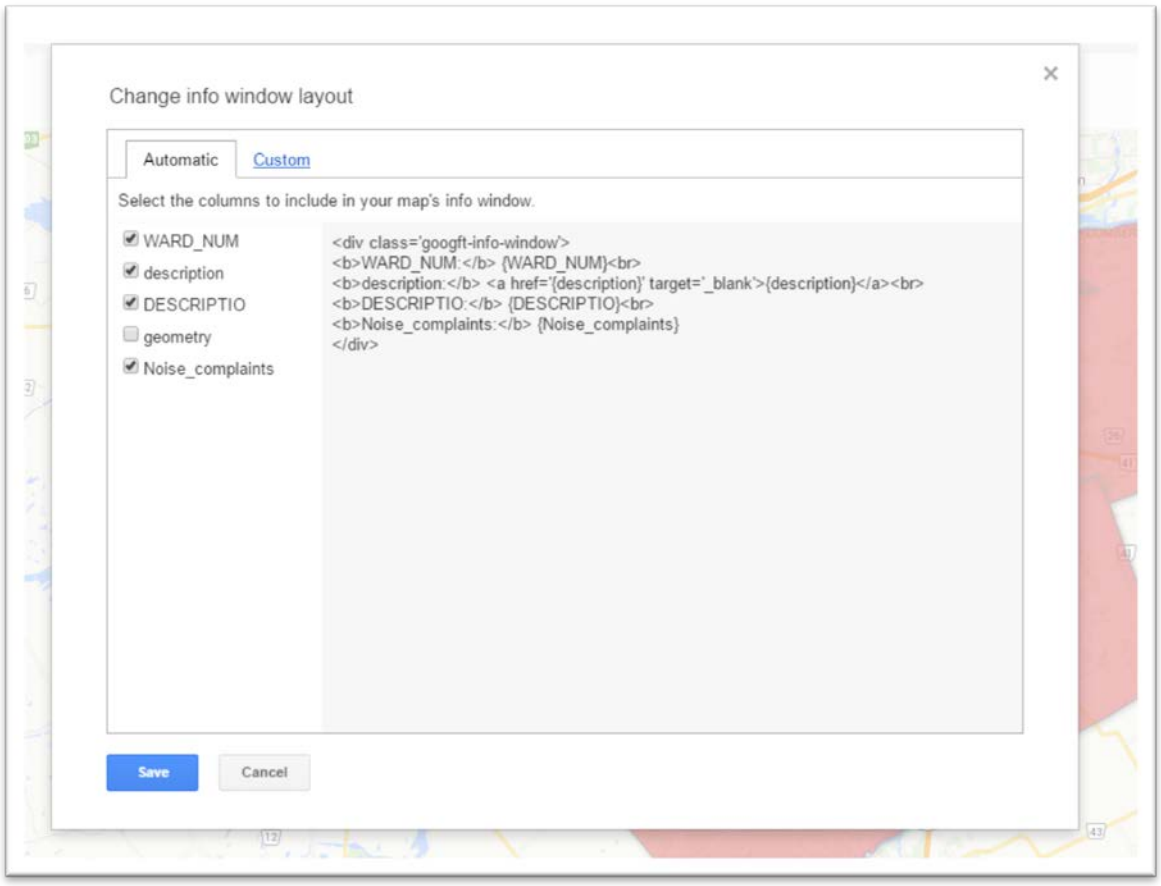
50) The merged table contains the column with the noise-complaint numbers, the values we'll use to create our heat or thematic map. The "description" field is empty. Don't worry about that for now. We can de-select or hide it later.

51) As we did with the kml file, select the “Map of geometry” tab to view the table.



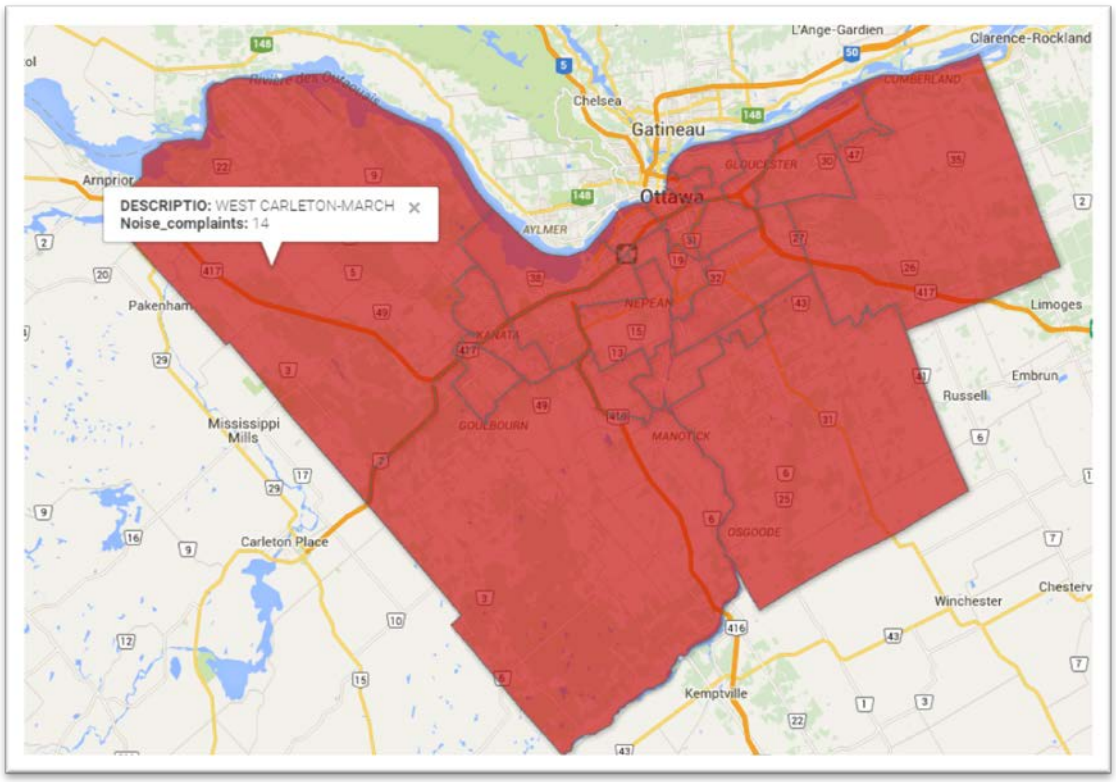
52) It doesn’t appear to be much different than the kml file. But upon closer inspection, it is.

53) Select the “Change info window” tab.



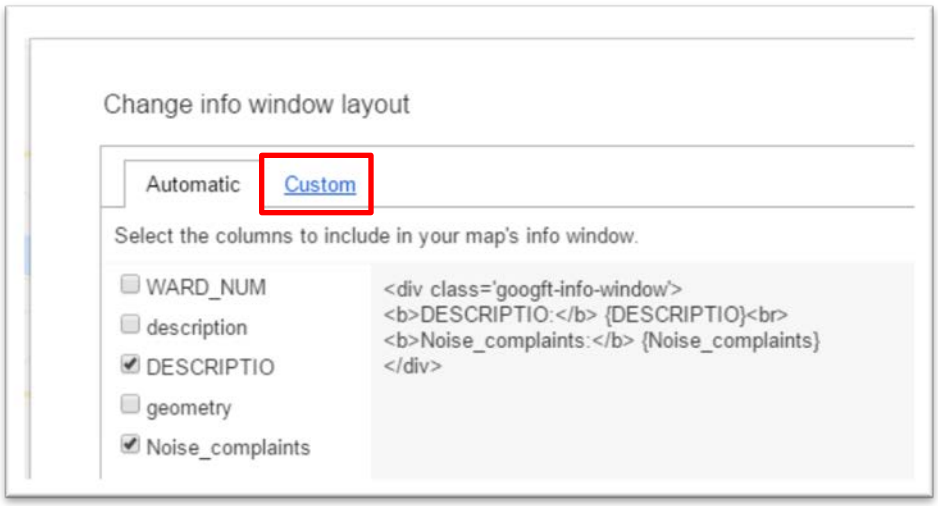
54) We can see that the noise complaints are there, as well as the other columns. This is the information your readers will see in the pop-up boxes when clicking within a ward boundary. We don’t want the information to be too cluttered. So let’s just select the “DESCRIPTIO” field

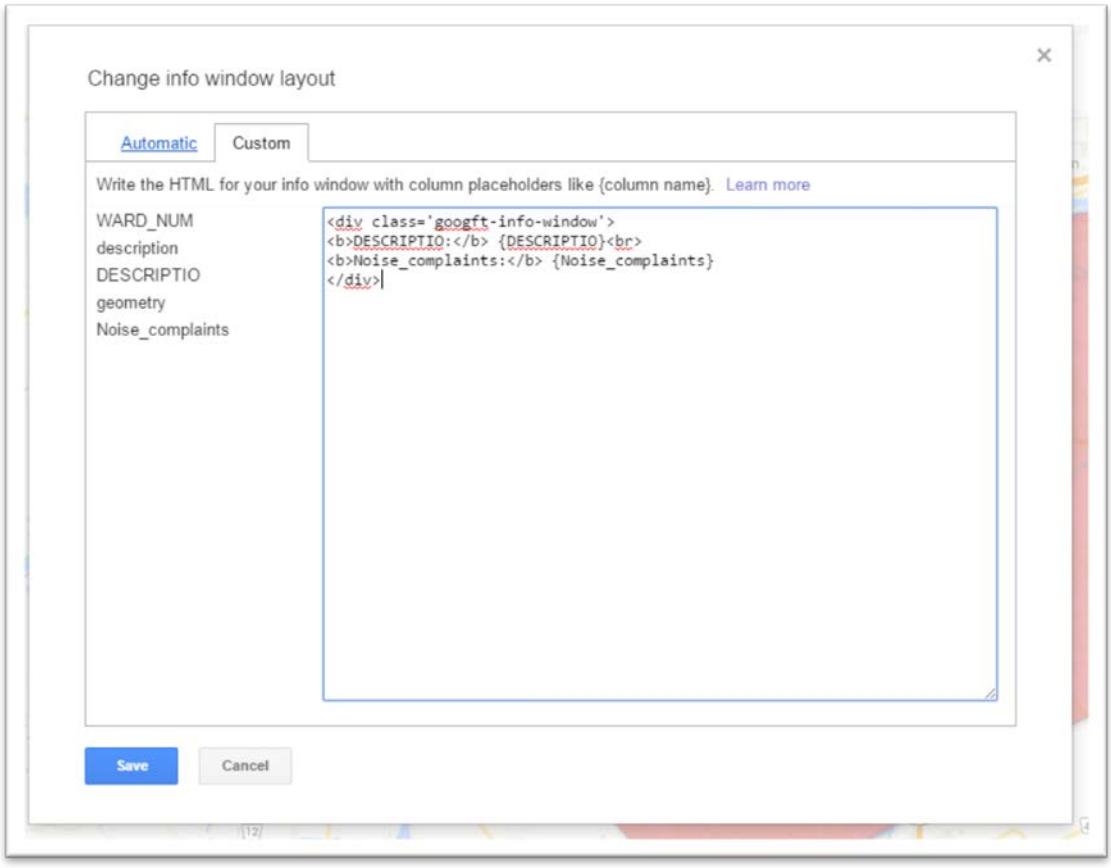
(we'll change the name in a minute) and "Noise_complaints".



55) The titles could use a make-over.

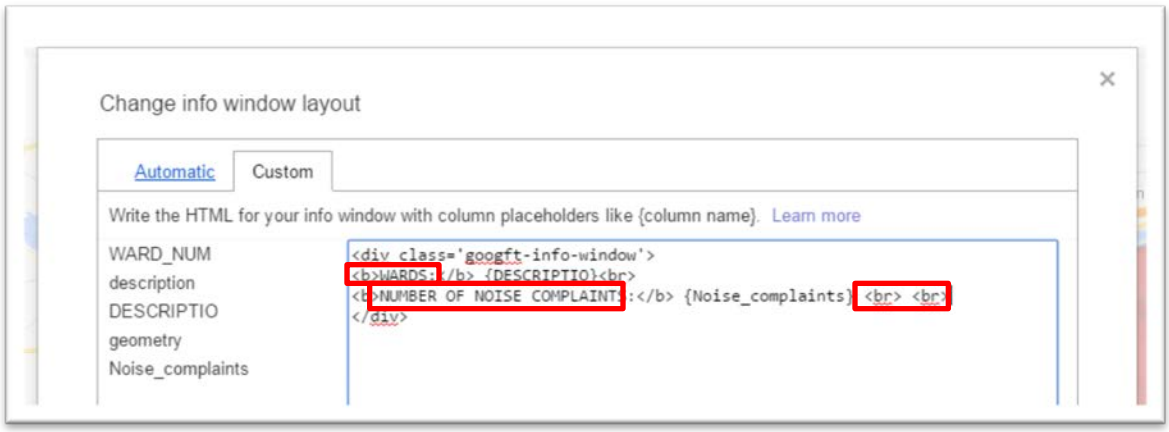
56) Return to the “Change info window” tab, and go the “Custom” tab.





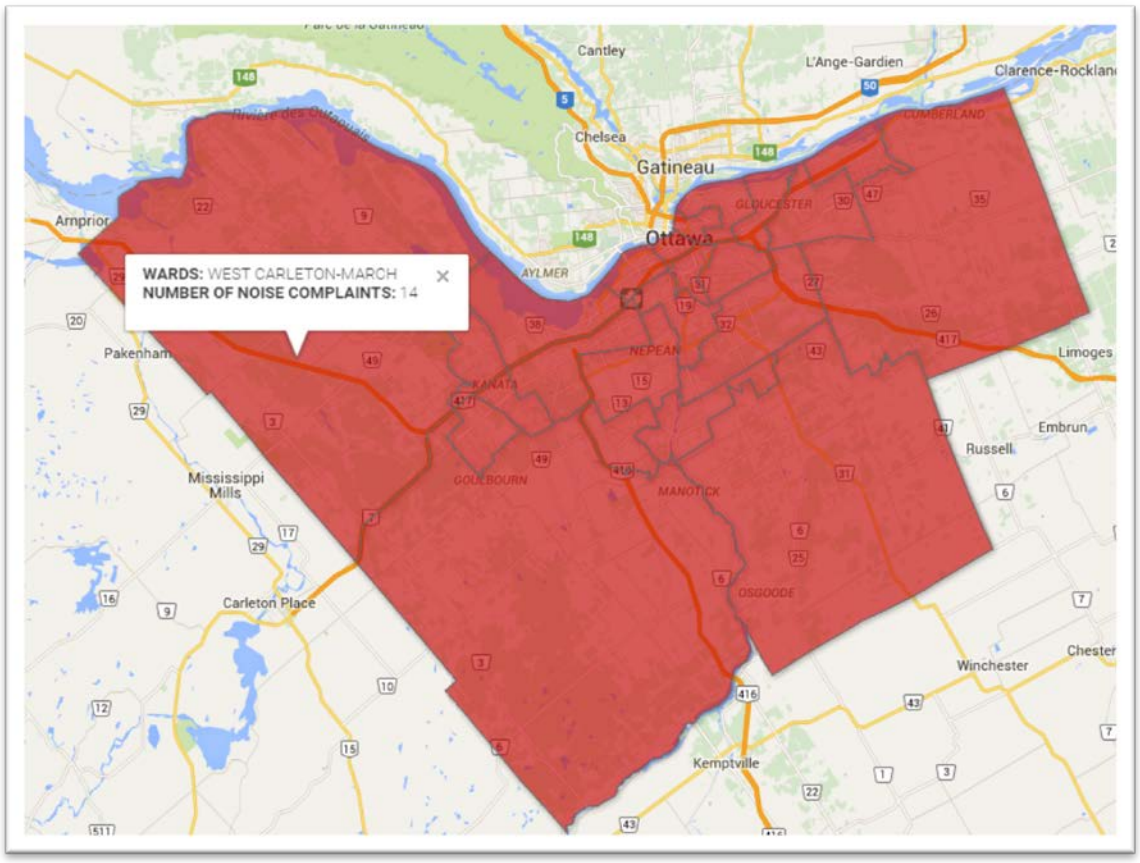
57) You’ll find the column titles you’ve selected to the left of the colon. You can change these titles and also add a bit more html formatting to expand the size of the pop-up box. The information to the right of the colon MUST remain as is. Because the titles are from the table and not simply

the ones that Fusion Tables displays, we can make any alterations.



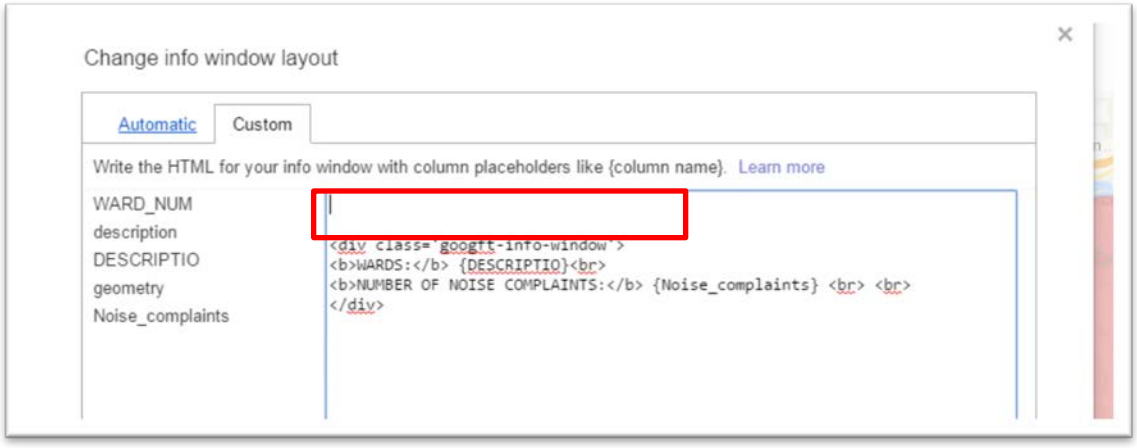
58) I've changed the names to "WARDS" and "NUMER OF NOISE COMPLAINTS" and added two page breaks (

) to extend the bottom of the pop-up box.
59) Select save, click within a ward boundary to see the result.

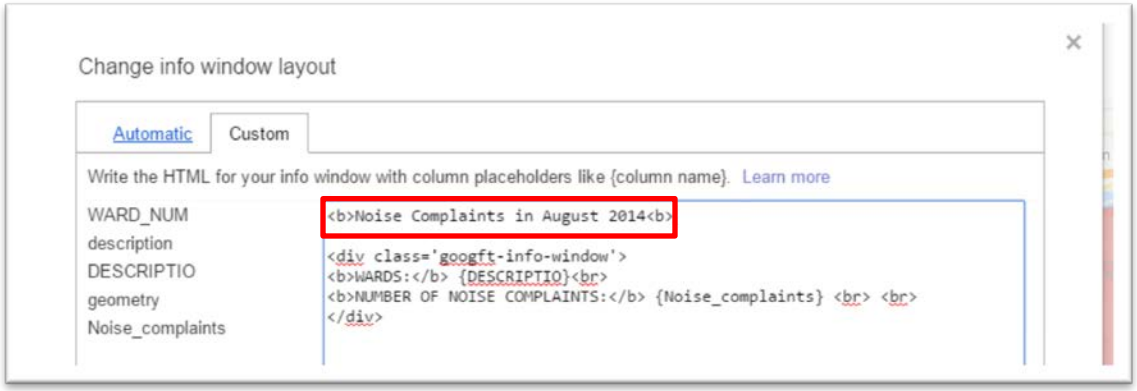


60) We've extended the bottom of the pop-up box to avoid words spilling onto the map, making them too difficult to read.
61) You can even give the pop-up boxes (which are really text boxes) titles.

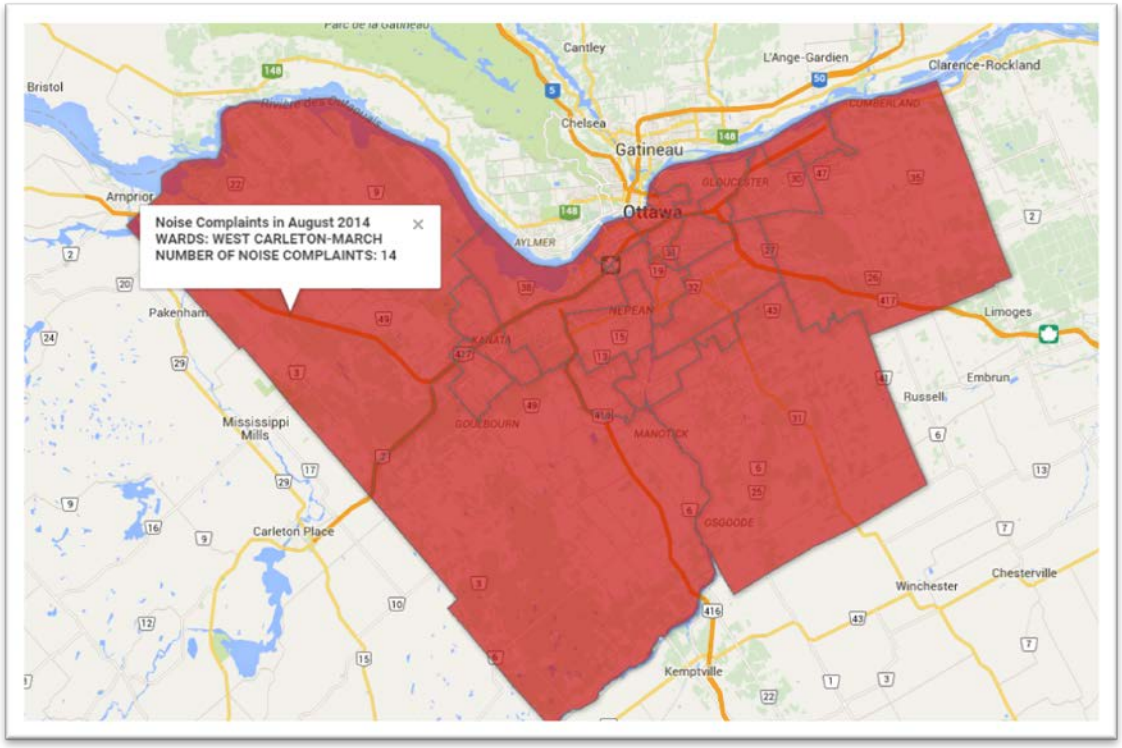
62) Return to the “Custom” portion of the “Change info window” section. And use “Enter” on your keyboard to create space at the top.



63) Create a title, and give it a bold formatting.



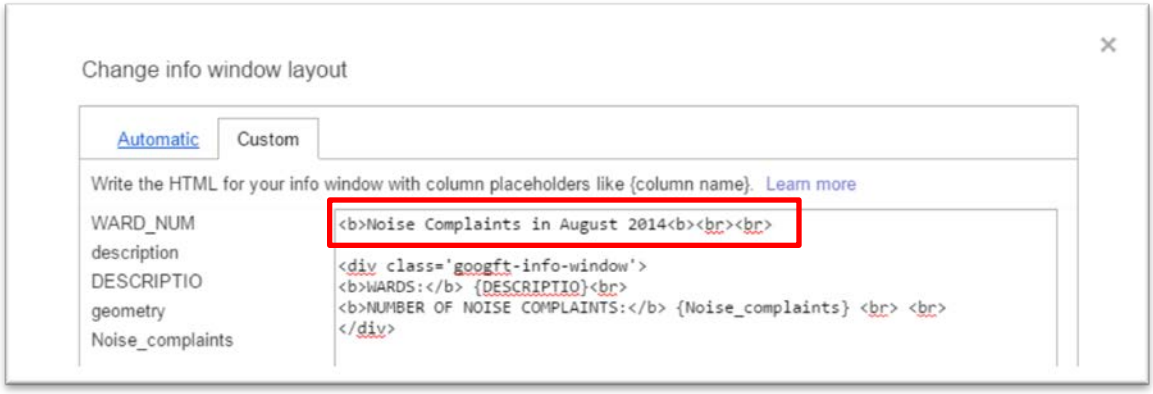
64) If you're happy with the result, save the changes and check out the result.

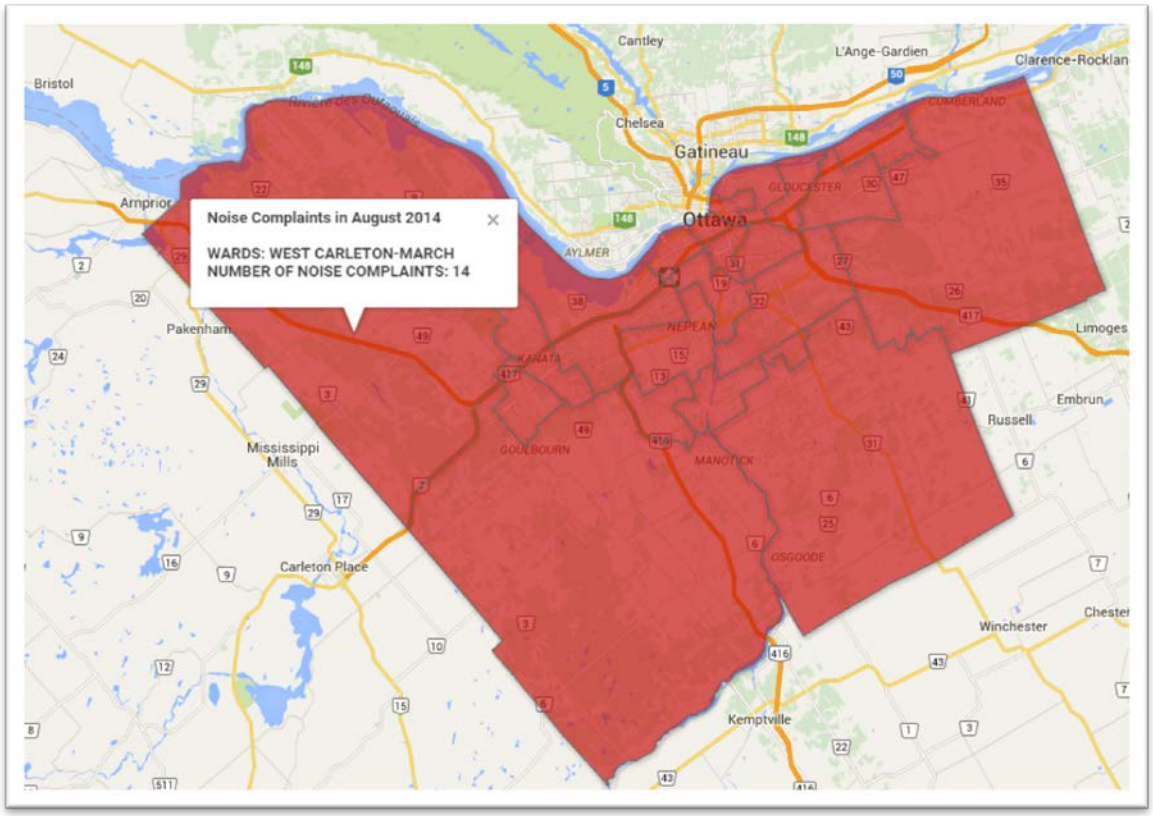


65) Not bad. However, it's too cluttered. We need to use two page-break tabs (

) to slide the titles lower down in the box.

66) Return to the “Custom” area and insert two page-break tabs.

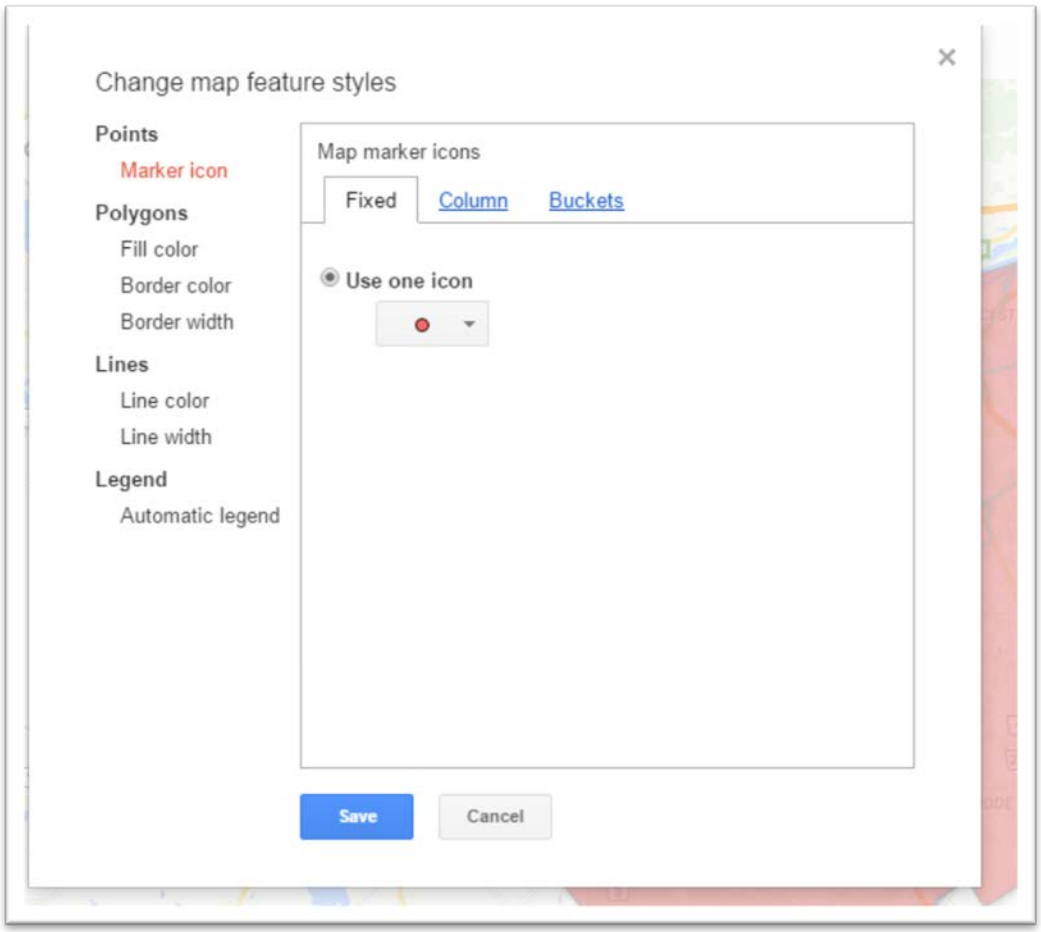




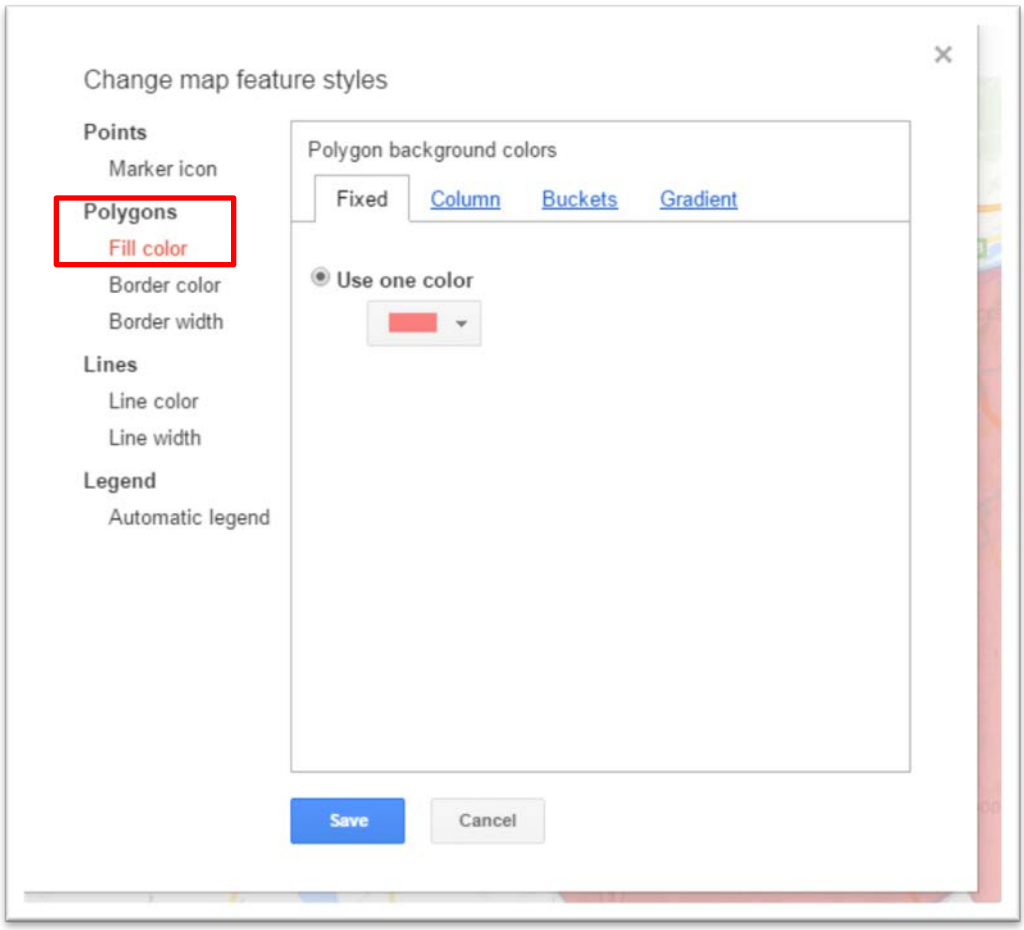
67) That’s better.

68) Now let’s create a heat map.

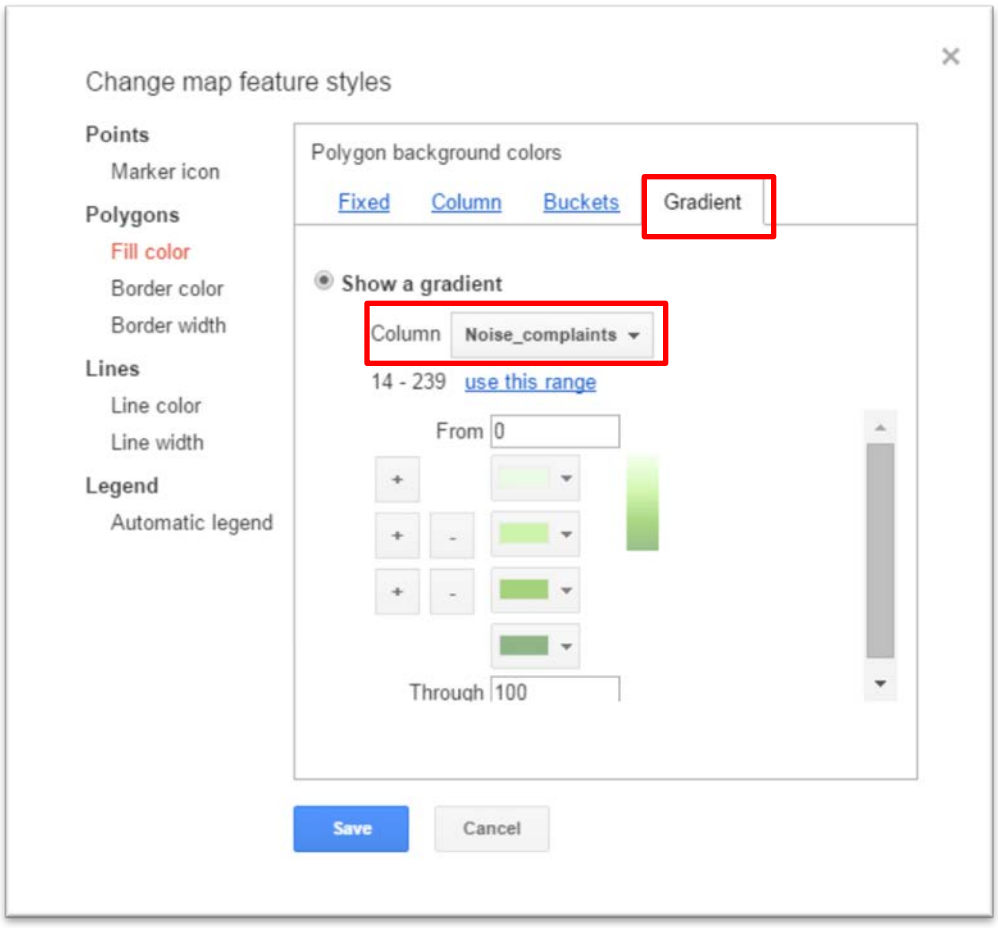
69) Select the “Change feature styles” tab to the left of the map.



70) Select the “Fill color” option under “Polygons”.

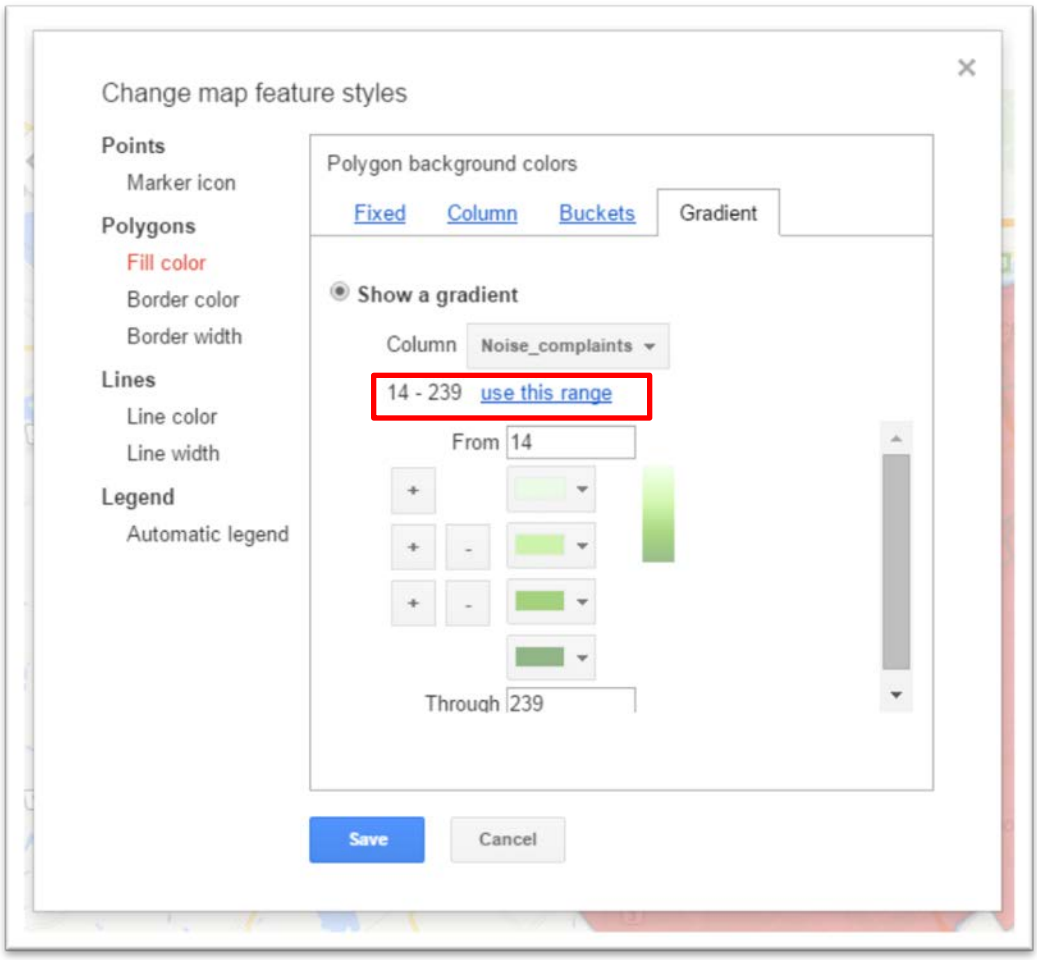


71) Select “Gradient”, and the Noise_complaints” column.



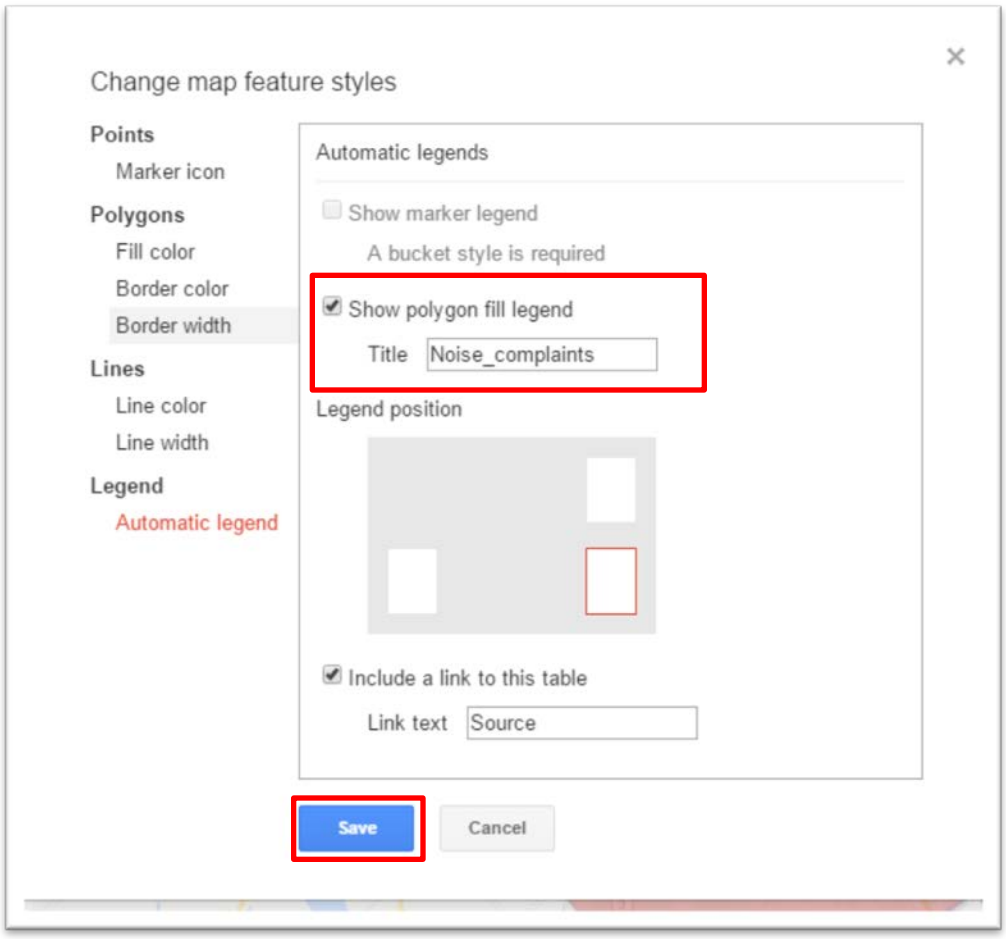
72) You’ll notice that in this section, Fusion Tables has retained the column’s original title. That’s because the changes we made were to the titles the viewer sees on the map. All of the original information in the tables (everything to the right of that colon) stays the same. When we select the “Noise_complaints” column, Fusion Tables gives us the range of values from smallest to largest, just like the table we uploaded.

73) Click on “use this range”.

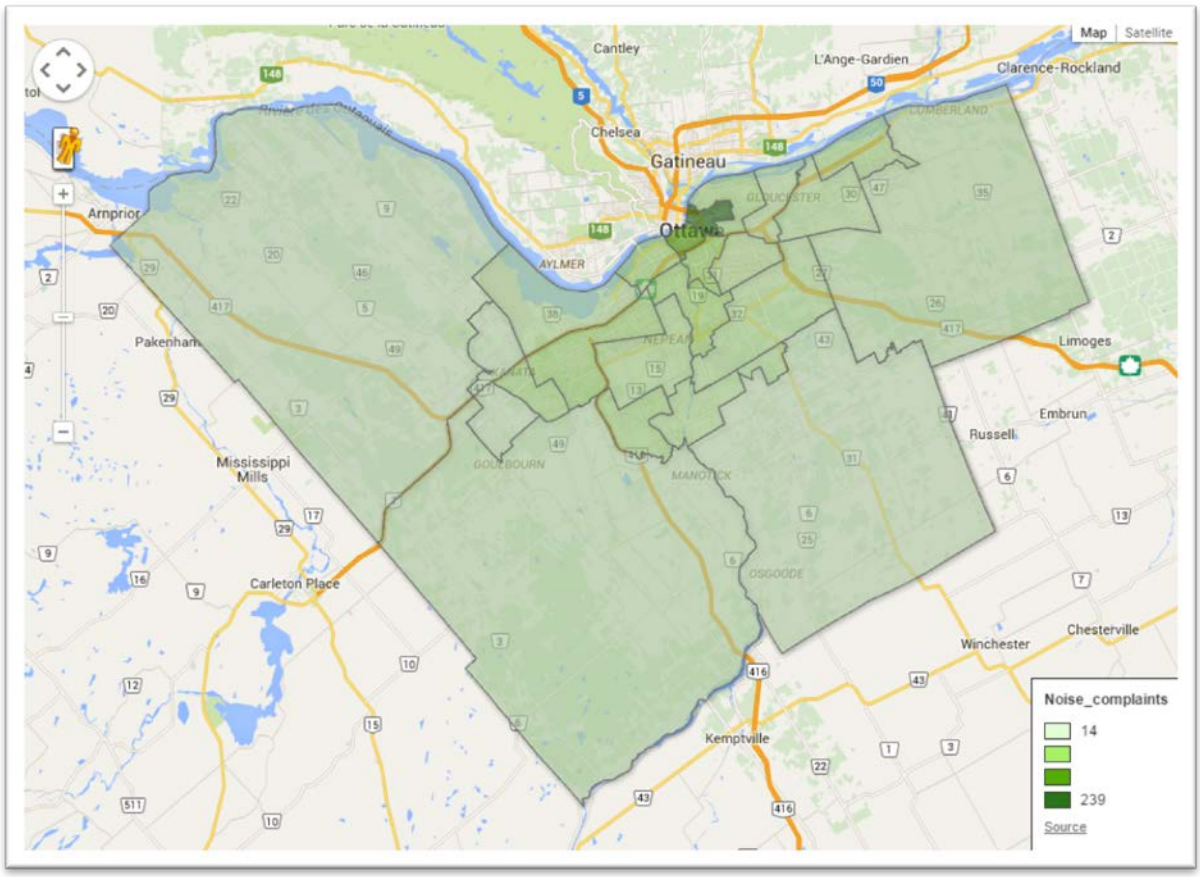


74) Now we have a gradient or different shades from lightest to darkest. Clicking on the “plus” sign, we can add more. We’ll also want to add a legend.

75) So before we hit save this feature style, select “Legend”, and “Show polygon fill legend” option.

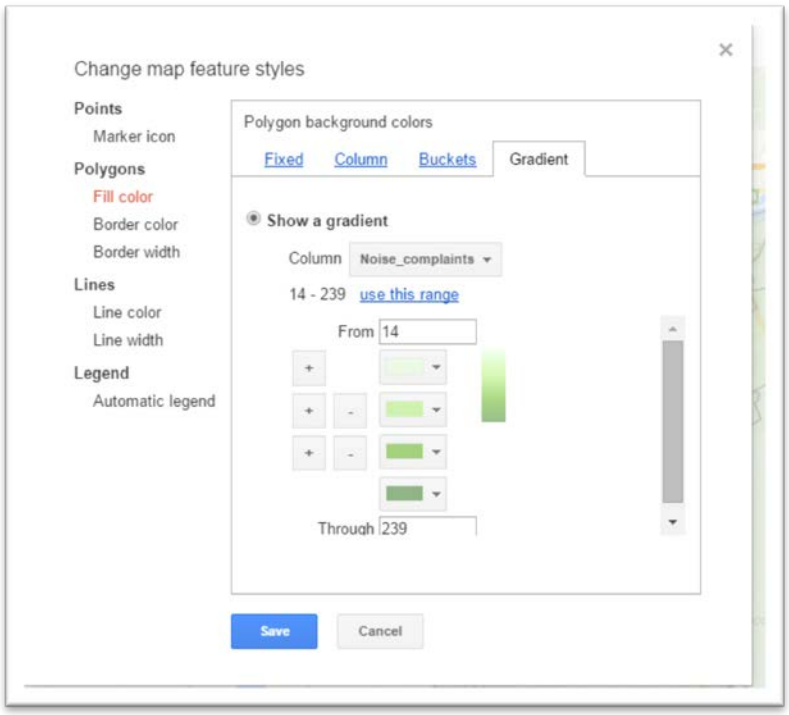


76) Save the result.

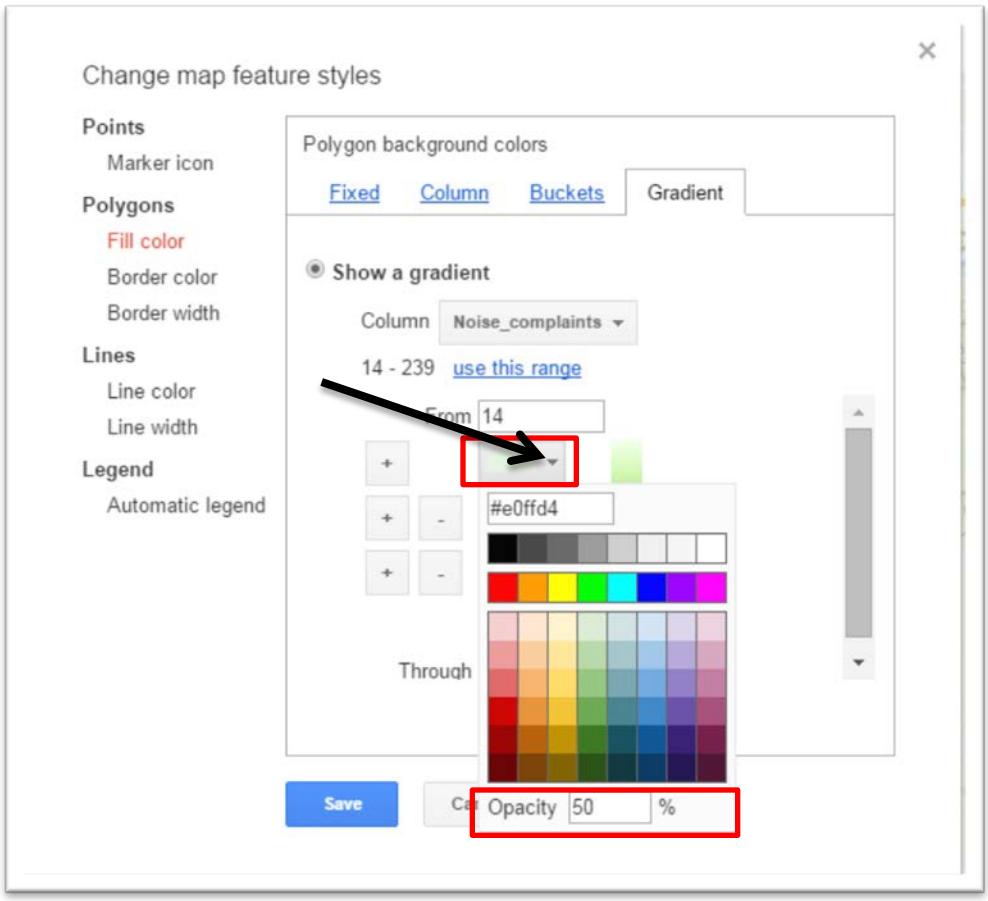


77) The darkest polygon is too difficult to see. To make the colors more prominent, return to the "Gradient" section in "Change feature styles", and return to the "Fill color" section under

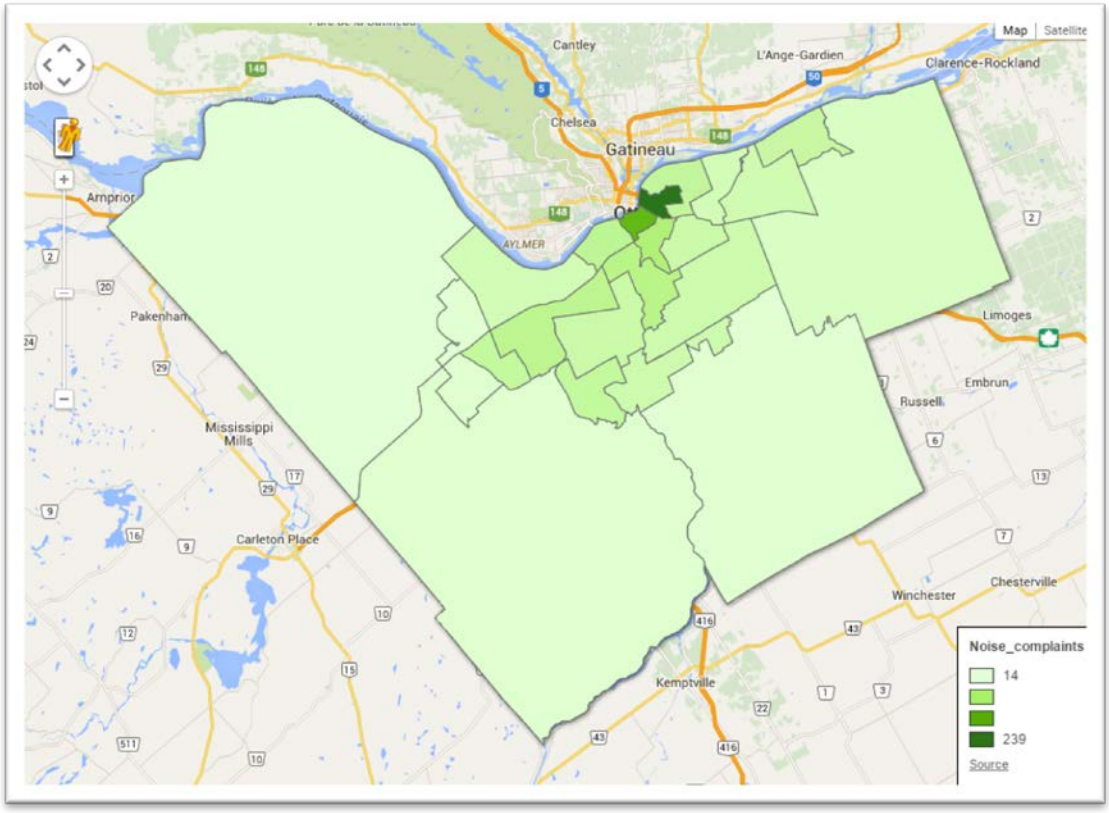
“Polygons”.


Change map feature styles
Points
Marker icon
Polygons
Fill color
Border color
Border width
Lines
Line color
Line width
Legend
Automatic legend
Polygon background colors
Fixed
Column
Buckets
Gradient
Show a gradient
Column
Noise_complaints
14 - 239
use this range
From
14
Through
239
Save
Cancel

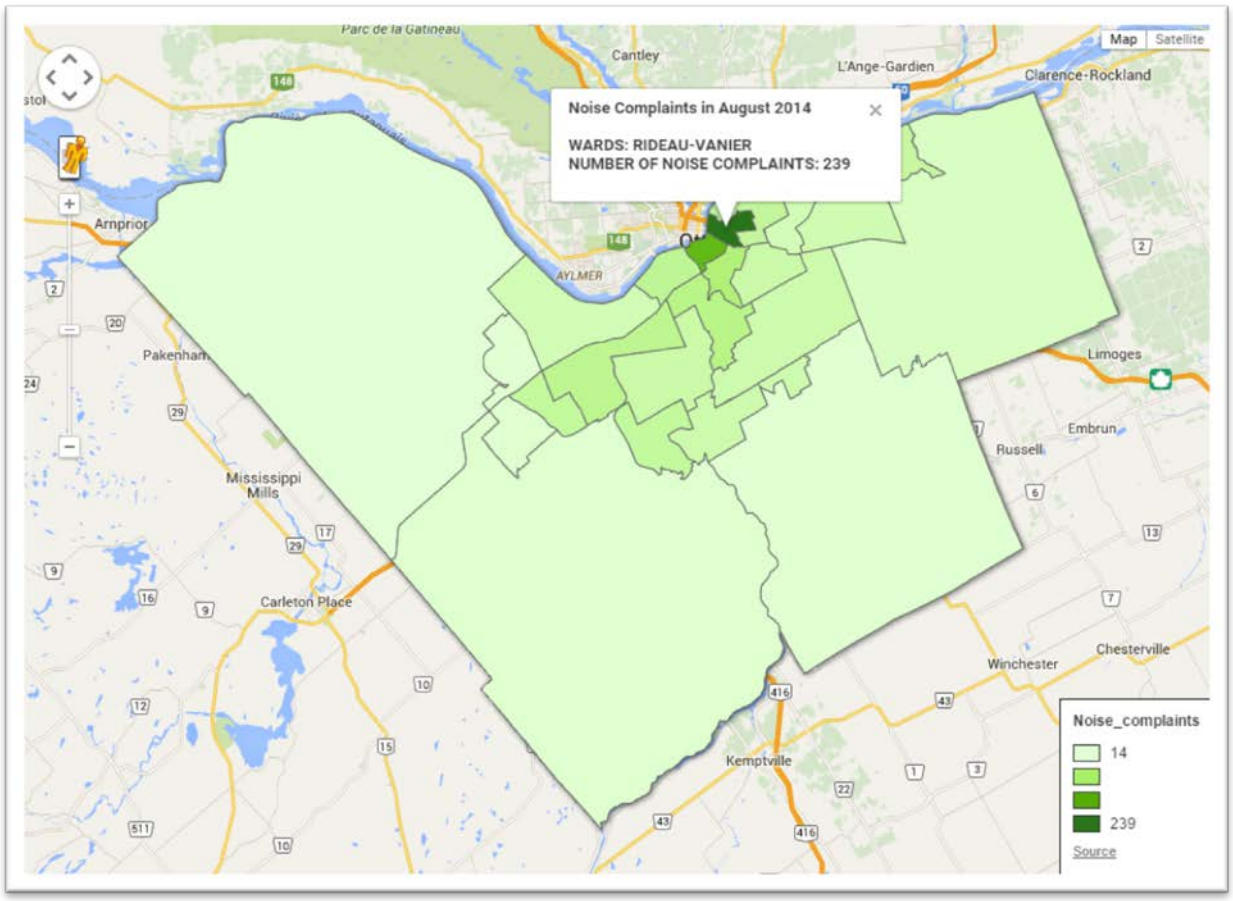
78) Click on the arrow to the right of the first colour tab.



79) Change the “Opacity” to 100%, repeat the same process for the other colour tabs, and “Save” the result.



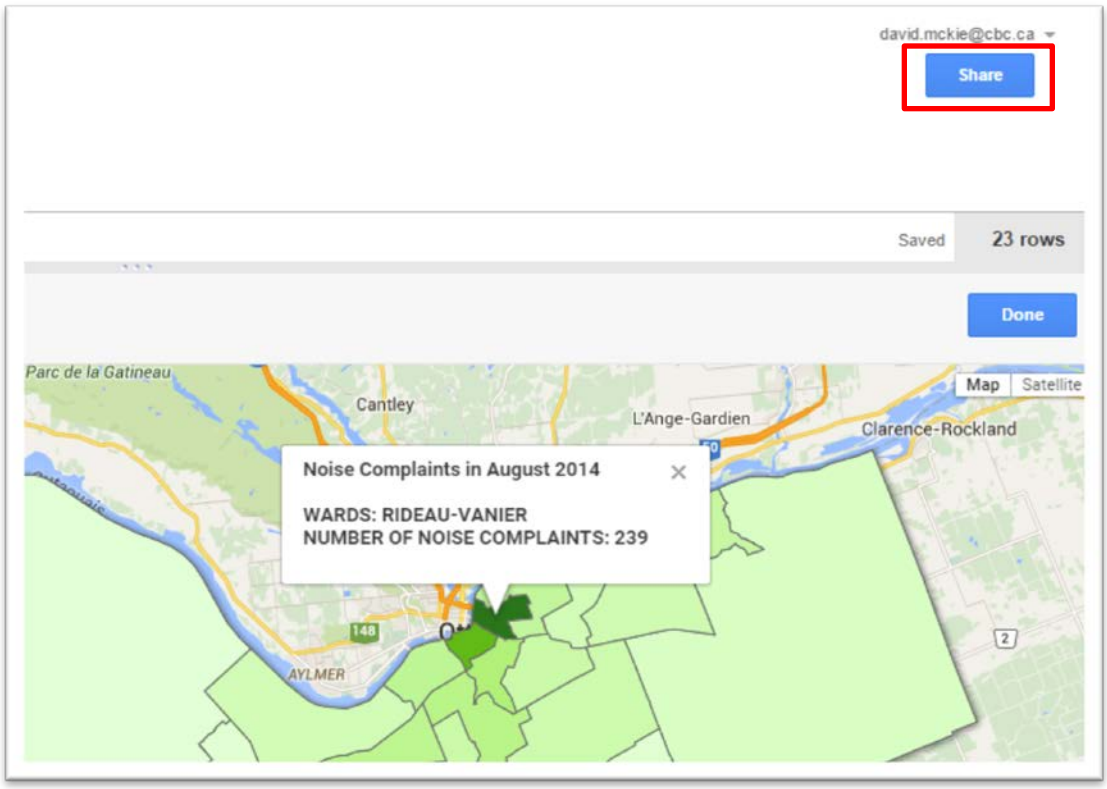
80) That's better. Now click on the hot spot.

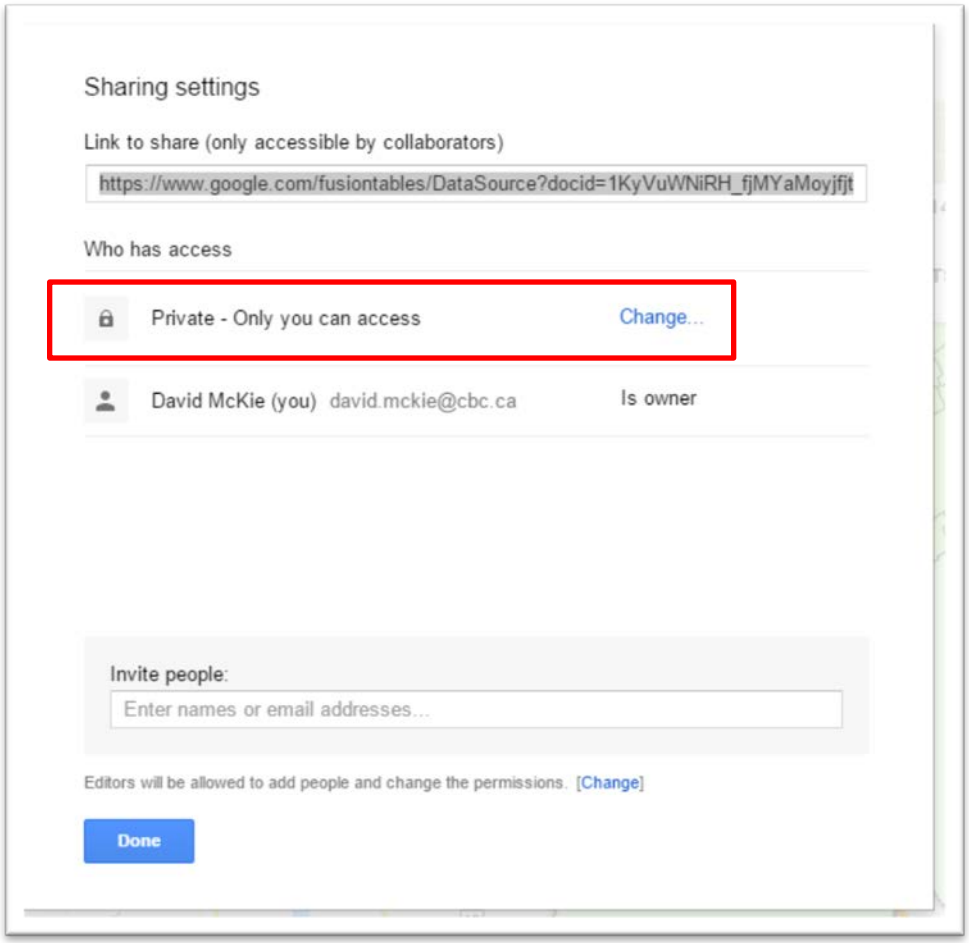


81) It's Rideau-Vanier, perhaps no surprise given the ward is home to a major tourist attraction and night spot, the Byward Market. This has to be verified, but the ward in the heart of downtown Ottawa may contain the greatest number of bars per capita. These establishments could be major sources of complaints.

82) If you're happy with the result, you'll want to share the map, allowing the world to see it, and then embed it into your posted story about the prevalence of noise complaints in August of 2014.

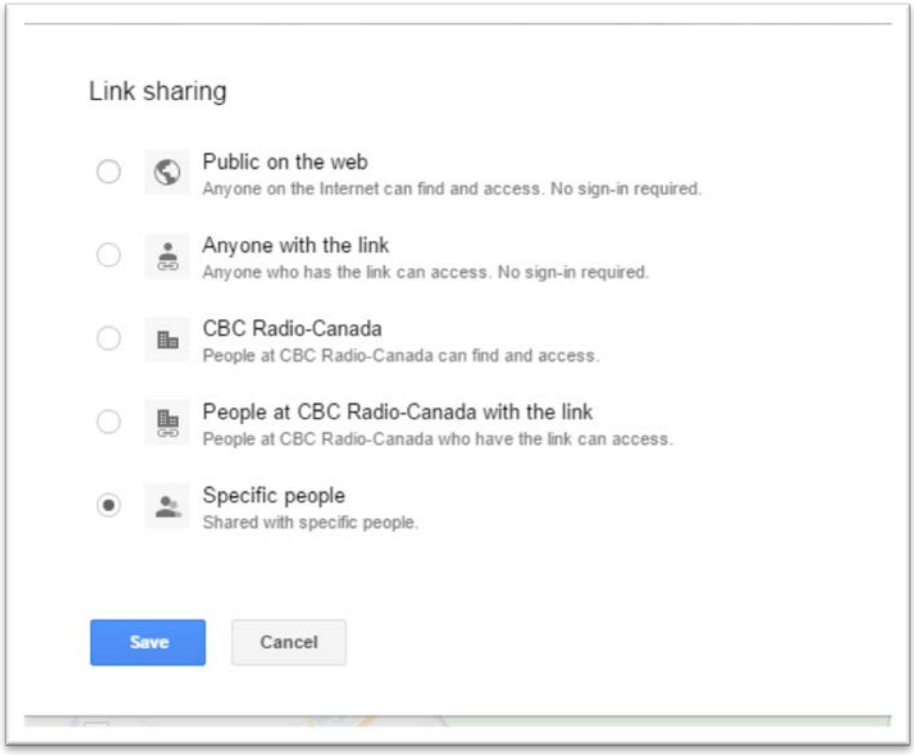
83) Select the “Share” button at the top.

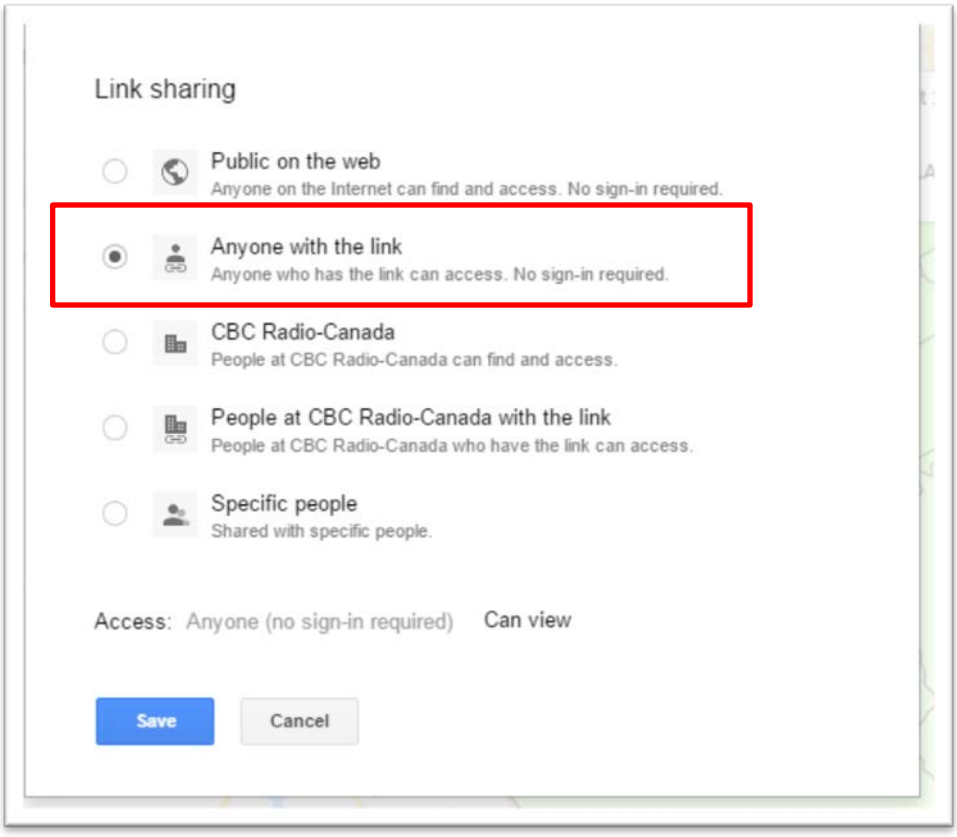




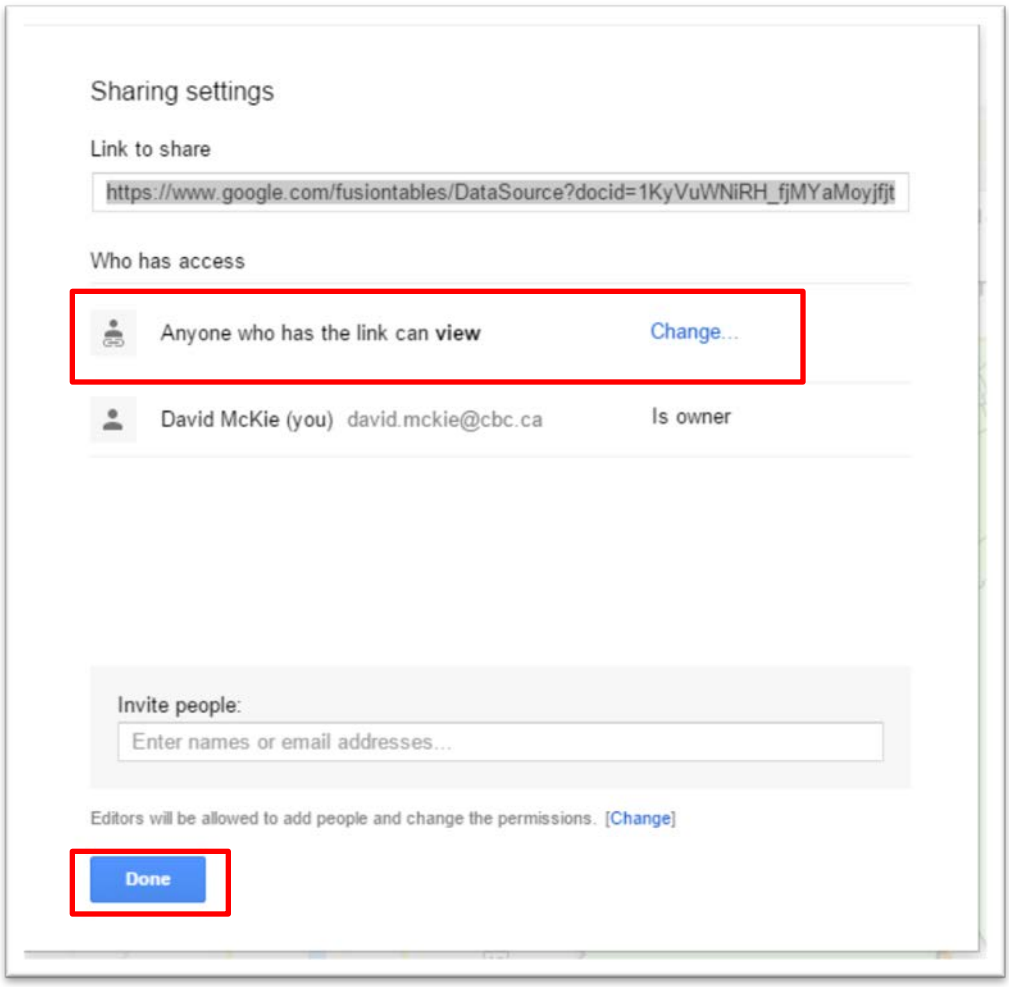
84) We'll change the "Private" setting.

85) Select “Change”, and then the “Anyone with the link” option.



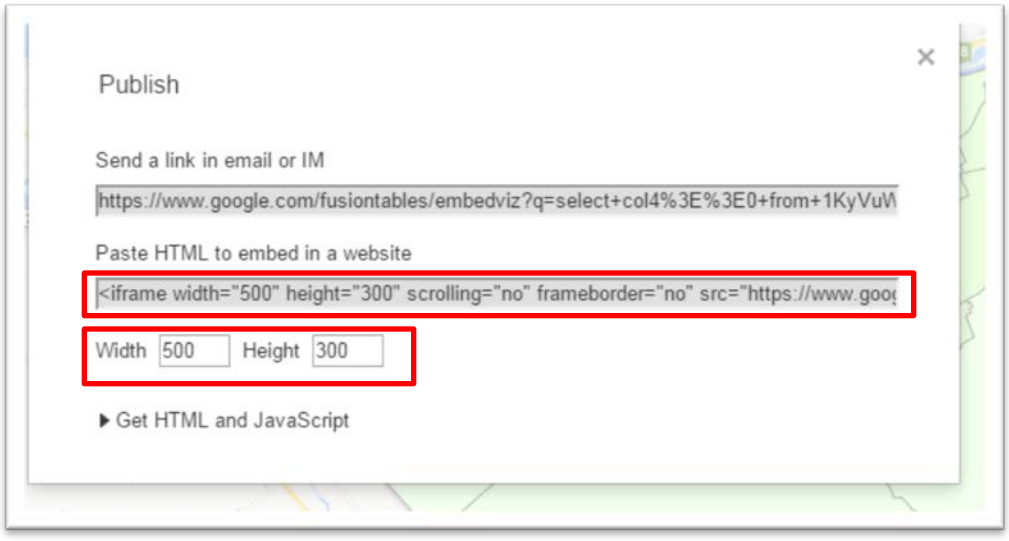


86) Save the result.



87) Select “Done”.

88) To embed the noise-complaint heat map, go to “Tools” and then “Publish”.



89) If you're happy with the dimensions, copy the "embed" code and paste it into your blog post's html or text view.
90) You can also create fusion table with different data sets by uploading tables with geographic coordinates such as longitude and latitudes or postal codes. Fusion tables maps the coordinates, be they federal contaminated sites, or the city of Ottawa's child-care facilities. The locations will be points on a map, whose pop-up boxes can be changed using the steps we're learned.
91) Best of luck!!