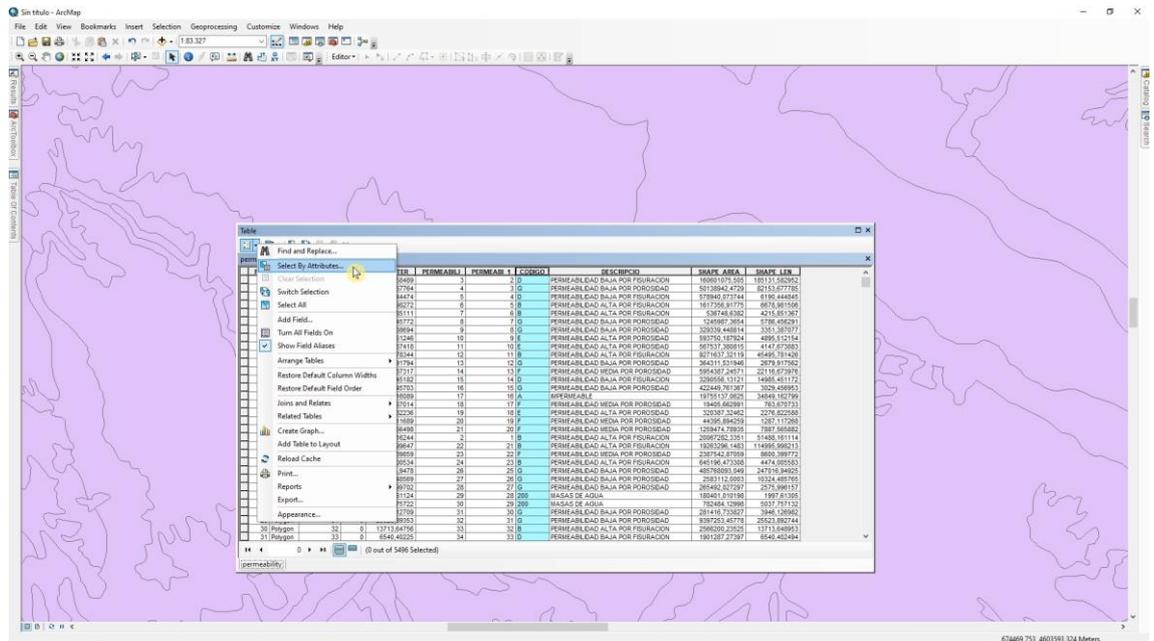




Previamente... Módulo 5 - Tarea 2

3. Requisito de impermeabilidad



Para la siguiente actividad necesitas añadir la capa de permeabilidad al proyecto. Abre la table de atributos y utiliza “Select by attributes” para marcar solo aquellos con una A en el campo “código”. También puedes ordenarlos alfabéticamente con un doble click en el encabezado y seleccionarlos manualmente.

TO LEARN MORE...

- https://www.sciencedirect.com/science/article/pii/S0304389408004573?casa_token=pYNY0TUQt2QAAAAA:N_WkhfEqrZtpf4lezZG5tGclCNSsC7lhyGuZxk9L-L7chIOXnj5SMdtxM9k08VTsot8YFUD4k2Af
- <https://www.sciencedirect.com/science/article/pii/S1110982312000245>





Utiliza "Get Unique Values" para obtener una lista de todos los valores del campo



Module 5 - Task 3

IMPERMEABILIDAD



FID	Shape	OBJECTID	AREA	PERIMETER	PERMEABILI	PERMEABI	CODIGO	DESCRIPCIO	SHAPE AREA	SHAPE LEN
14	Polygon	16	0	34849.16089	17	16	A	IMPERMEABLE	19755137.0625	34849.162799
35	Polygon	37	0	2783.87855	38	37	A	IMPERMEABLE	347529.726761	2783.878278
42	Polygon	40	0	60509.30782	41	40	A	IMPERMEABLE	35310193.5501	60509.307247
84	Polygon	100	0	48754.79402	101	100	A	IMPERMEABLE	23807689.6902	48754.793587
90	Polygon	106	0	9009.35554	107	106	A	IMPERMEABLE	1765325.00074	9009.354605
92	Polygon	108	0	26920.70099	109	108	A	IMPERMEABLE	17084924.0218	26920.70125
129	Polygon	149	0	47028.92353	150	149	A	IMPERMEABLE	23032737.9403	47028.925327
149	Polygon	169	0	2885.10506	170	169	A	IMPERMEABLE	208500.063346	2885.105425
150	Polygon	170	0	42147.28854	171	170	A	IMPERMEABLE	78625796.2107	42147.289309
156	Polygon	176	0	36800.22669	177	176	A	IMPERMEABLE	5765537.23971	36800.228096
162	Polygon	182	0	2957.99376	183	182	A	IMPERMEABLE	318037.58927	2957.994083
166	Polygon	186	0	9044.35083	187	186	A	IMPERMEABLE	3306575.4941	9044.351605
168	Polygon	188	0	23262.31282	189	188	A	IMPERMEABLE	25386774.8497	23262.313851
173	Polygon	120	0	3414.24448	121	120	A	IMPERMEABLE	453625.135914	3414.2441
209	Polygon	232	0	7735.83688	233	232	A	IMPERMEABLE	1556437.71261	7735.837269
210	Polygon	233	0	16046.3983	234	233	A	IMPERMEABLE	2877012.75871	16046.398279
216	Polygon	239	0	12546.77783	240	239	A	IMPERMEABLE	4040750.35378	12546.778133
225	Polygon	248	0	4684.69259	249	248	A	IMPERMEABLE	1054787.86545	4684.692402
239	Polygon	327	0	81247.03779	328	327	A	IMPERMEABLE	10537324.3455	81247.038982
247	Polygon	213	0	3650.96377	214	213	A	IMPERMEABLE	442737.597343	3650.964164
257	Polygon	223	0	38170.94647	224	223	A	IMPERMEABLE	25564956.6186	38170.945473
277	Polygon	303	0	4175.49829	304	303	A	IMPERMEABLE	532799.800895	4175.498416
280	Polygon	306	0	7516.37007	307	306	A	IMPERMEABLE	1294974.87804	7516.370608
290	Polygon	316	0	4218.40538	317	316	A	IMPERMEABLE	639250.163851	4218.405708
294	Polygon	320	0	73671.40716	321	320	A	IMPERMEABLE	41548549.9657	73671.406944
298	Polygon	324	0	367.20728	325	324	A	IMPERMEABLE	4150.027263	367.207534
321	Polygon	284	0	2281.75243	285	284	A	IMPERMEABLE	278037.722077	2281.752975
326	Polygon	289	0	4151.00676	290	289	A	IMPERMEABLE	456624.908588	4151.006288
339	Polygon	376	0	17445.69352	377	376	A	IMPERMEABLE	3192650.25629	17445.694382
349	Polygon	386	0	2427.03324	387	386	A	IMPERMEABLE	304199.879292	2427.031941
350	Polygon	387	0	5522.99262	388	387	A	IMPERMEABLE	777037.443746	5522.993531
358	Polygon	395	0	1519.63904	396	395	A	IMPERMEABLE	105612.626987	1519.639282

Visualiza solo los elementos seleccionados

TER	PERMEABILI	PERMEABI	CODIGO	DESCRIPCIO	SHAPE AREA	SHAPE LEN
16089	17	16	A	IMPERMEABLE	19755137.0625	34849.162799
87855	38	37	A	IMPERMEABLE	347529.726761	2783.878278
30782	41	40	A	IMPERMEABLE	35310193.5501	60509.307247
79402	101	100	A	IMPERMEABLE	23807689.6902	48754.793587
35554	107	106	A	IMPERMEABLE	1765325.00074	9009.354605
70099	109	108	A	IMPERMEABLE	17084924.0218	26920.70125
92353	150	149	A	IMPERMEABLE	23032737.9403	47028.925327
10506	170	169	A	IMPERMEABLE	208500.063346	2885.105425
28854	171	170	A	IMPERMEABLE	78625796.2107	42147.289309
22669	177	176	A	IMPERMEABLE	5765537.23971	36800.228096
99376	183	182	A	IMPERMEABLE	318037.58927	2957.994083
35063	187	186	A	IMPERMEABLE	3306575.4941	9044.351605
31282	189	188	A	IMPERMEABLE	25386774.8497	23262.313851
24448	121	120	A	IMPERMEABLE	453625.135914	3414.2441
83688	233	232	A	IMPERMEABLE	1556437.71261	7735.837269
13983	234	233	A	IMPERMEABLE	2877012.75871	16046.398279
77783	240	239	A	IMPERMEABLE	4040750.35378	12546.778133
99259	249	248	A	IMPERMEABLE	1054787.86545	4684.692402
10379	328	327	A	IMPERMEABLE	10537324.3455	81247.038982
96377	214	213	A	IMPERMEABLE	442737.597343	3650.964164
94647	224	223	A	IMPERMEABLE	25564956.6186	38170.945473
99629	304	303	A	IMPERMEABLE	532799.800895	4175.498416
37007	307	306	A	IMPERMEABLE	1294974.87804	7516.370608
40538	317	316	A	IMPERMEABLE	639250.163851	4218.405708
40716	321	320	A	IMPERMEABLE	41548549.9657	73671.406944
40728	325	324	A	IMPERMEABLE	4150.027263	367.207534
75243	285	284	A	IMPERMEABLE	278037.722077	2281.752975
100676	290	289	A	IMPERMEABLE	456624.908588	4151.006288
89352	377	376	A	IMPERMEABLE	3192650.25629	17445.694382
83324	387	386	A	IMPERMEABLE	304199.879292	2427.031941
5522	388	387	A	IMPERMEABLE	777037.443746	5522.993531
1519	396	395	A	IMPERMEABLE	105612.626987	1519.639282

Añade un nuevo campo llamado "geology" con tipo "short integer".



Module 5 - Task 3

IMPERMEABILITY



FID	Shape	OBJECTID	AREA	PERIMETER	PERMEABIL	PERMEABI_1	CODIGO	DESCRIPCIO	SHAPE_AREA	SHAPE_LEN	geology
14	Polygon	16	0	34849.16089	17	16	A	IMPERMEABLE	19755137.0625	34849.162799	0
35	Polygon	37	0	2783.87855	38	37	A	IMPERMEABLE	347529.726761	2783.878278	0
42	Polygon	40	0	60509.30782	41	40	A	IMPERMEABLE	35310193.5501	60509.307247	0
84	Polygon	100	0	48754.79402	101	100	A	IMPERMEABLE	23807689.6902	48754.793587	0
90	Polygon	106	0	9009.35554	107	106	A	IMPERMEABLE	1765325.00074	9009.354605	0
92	Polygon	108	0	26920.70099	109	108	A	IMPERMEABLE	17084924.0218	26920.70125	0
129	Polygon	149	0	47028.92353	150	149	A	IMPERMEABLE	23932737.9403	47028.923527	0
149	Polygon	169	0	2885.10506	170	169	A	IMPERMEABLE	208500.063346	2885.105425	0
150	Polygon	170	0	42147.28854	171	170	A	IMPERMEABLE	78625798.2107	42147.289309	0
156	Polygon	176	0	36800.22669	177	176	A	IMPERMEABLE	5765537.23971	36800.228096	0
162	Polygon	182	0	2957.99376	183	182	A	IMPERMEABLE	318037.58927	2957.994083	0
166	Polygon	186	0	9044.35063	187	186	A	IMPERMEABLE	3306575.4941	9044.351605	0
168	Polygon	188	0	23262.31282	189	188	A	IMPERMEABLE	25386774.8497	23262.313851	0
173	Polygon	120	0	3414.24448	121	120	A	IMPERMEABLE	453625.135914	3414.2441	0
209	Polygon	232	0	7735.83688	233	232	A	IMPERMEABLE	1556437.71261	7735.837269	0
210	Polygon	233	0	16046.3983	234	233	A	IMPERMEABLE	2877012.75871	16046.398279	0
216	Polygon	239	0	12546.77763	240	239	A	IMPERMEABLE	4040759.35378	12546.778133	0
225	Polygon	248	0	4684.69259	249	248	A	IMPERMEABLE	1054787.86545	4684.692402	0
239	Polygon	327	0	81247.0379	328	327	A	IMPERMEABLE	10537324.3455	81247.038882	0
247	Polygon	213	0	3650.96377	214	213	A	IMPERMEABLE	442737.597343	3650.964164	0
257	Polygon	223	0	38170.94647	224	223	A	IMPERMEABLE	25564956.6186	38170.945473	0
277	Polygon	303	0	4175.49829	304	303	A	IMPERMEABLE	532799.808095	4175.498416	0
280	Polygon	306	0	7516.37007	307	306	A	IMPERMEABLE	1264874.87804	7516.370608	0
290	Polygon	316	0	4218.40538	317	316	A	IMPERMEABLE	639250.163851	4218.405708	0
294	Polygon	320	0	73671.40716	321	320	A	IMPERMEABLE	41548549.9657	73671.406944	0
298	Polygon	324	0	367.20728	325	324	A	IMPERMEABLE	4150.027263	367.207534	0
321	Polygon	284	0	2281.75243	285	284	A	IMPERMEABLE	278037.722077	2281.752975	0
326	Polygon	289	0	4151.00676	290	289	A	IMPERMEABLE	455624.908588	4151.006288	0
339	Polygon	376	0	17445.69352	377	376	A	IMPERMEABLE	3192650.25629	17445.694382	0
349	Polygon	386	0	2427.03324	387	386	A	IMPERMEABLE	304199.879292	2427.031941	0
350	Polygon	387	0	5522.99262	388	387	A	IMPERMEABLE	777037.443746	5522.993531	0
358	Polygon	395	0	1519.63904	396	395	A	IMPERMEABLE	105612.626987	1519.639282	0

Con click derecho en el encabezado de la columna selecciona "Field Calculator"

Field Calculator

Parser: VB Script Python

Fields: FID, Shape, OBJECTID, AREA, PERIMETER, PERMEABIL, PERMEABI_1, CODIGO, DESCRIPCIO

Type: Number String Date

Functions: Abs(), Atn(), Cos(), Exp(), Fix(), Int(), Log(), Sin(), Sqr(), Tan()

Show Codeblock:

geology = 1

About calculating fields

Clear Load... Save... OK Cancel

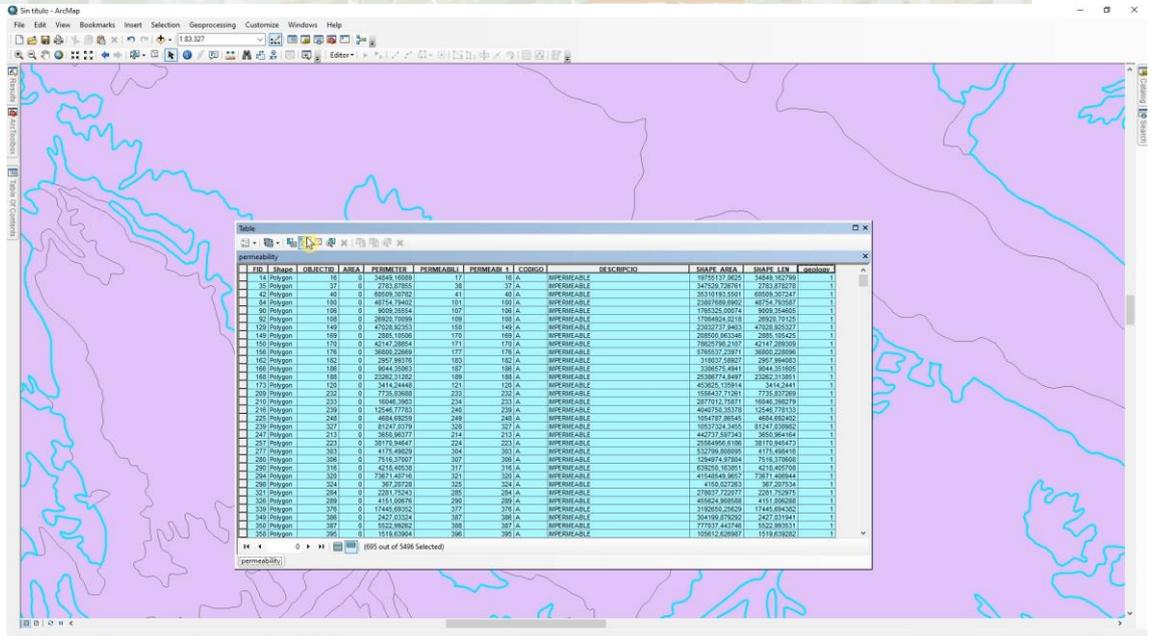
Asigna valor de 1



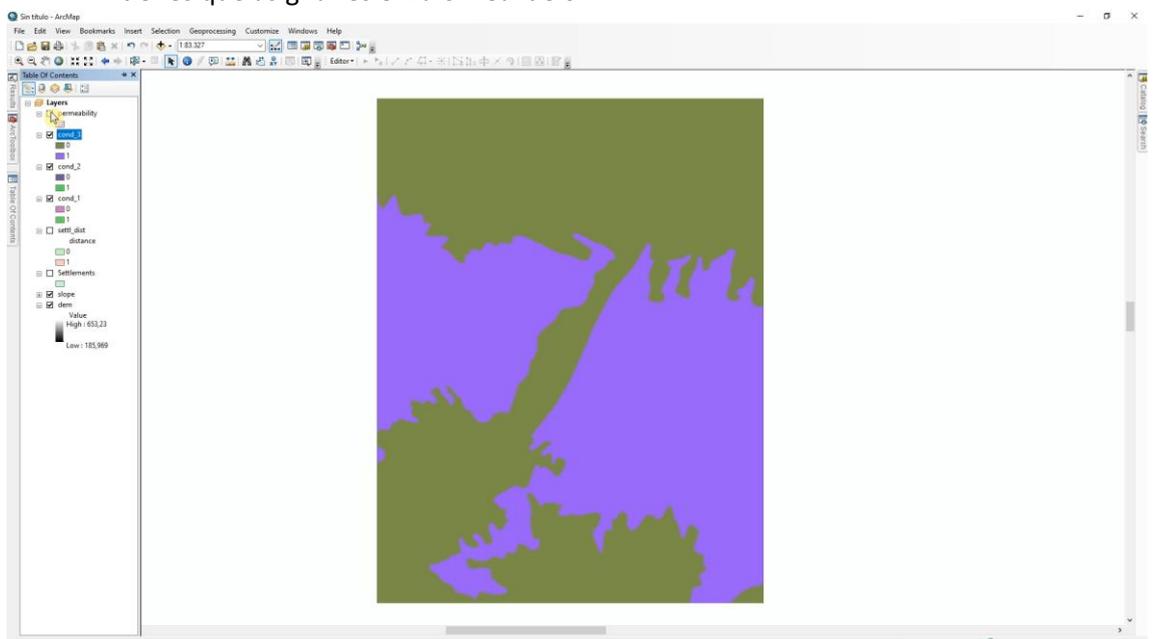


Module 5 - Task 3

IMPERMEABILITY



Invierte la selección y asigna 0 a los elementos seleccionados. Es necesario hacerlo incluso aunque el campo ya este poblado con ceros ya que estos 0 solo representan la celda vacía (sin datos) y no son un valor real, así que tienes que asignarles el valor real de 0.



Convierte la capa usando "Feature to raster" usando el campo "Geology", cambia el tamaño de la celda a 10 metros y determina el "processing extent" al mismo que el MDE (si no recuerdas como se hace esto revisa la Tarea 1).

Continua... Módulo 5 – Tarea 4