LAMPIRAN

Lampiran 1. Parameter Input Data Cuaca

1. Stasiun Geofisika Yogyakarta

	Jan	Feb	Mar	Apr	Mei	Jun	Jul	Ags	Sep	Okt	Nov	Des
TMPMX (ºC)	30.57	31.08	31.59	32.62	32.15	31.38	30.34	30.07	30.91	32.44	31.67	30.84
TMPMN (ºC)	23.00	23.17	23.51	22.58	21.76	19.91	20.04	21.98	23.38	23.97	23.69	22.58
TMPSTDMX (ºC)	1.37	1.25	1.26	0.66	1.20	0.96	1.26	1.30	1.30	0.85	1.32	0.89
TMPSTDMN (ºC)	0.47	0.70	0.69	1.03	0.93	1.53	1.40	1.73	1.38	1.02	0.75	1.21
PCPMM (mm)	14.22	12.07	6.16	3.58	0.35	0.58	0.00	0.04	0.69	0.00	8.95	5.52
PCPSTD (mm)	15.59	18.36	11.76	8.65	0.88	2.60	0.00	0.15	3.01	0.00	18.29	9.74
PCPSKW	0.03	-0.04	0.07	0.09	0.08	0.17	0.00	0.15	0.16	0.00	0.10	0.07
PRW1	1.00	0.50	0.29	0.35	0.16	0.07	0.00	0.07	0.11	0.00	0.29	0.45
PRW2	0.85	0.67	0.64	0.15	0.33	0.00	0.00	0.00	0.00	0.00	0.62	0.70
PCPD (mm)	27.00	18.00	14.00	10.00	6.00	2.00	0.00	2.00	3.00	0.00	13.00	20.00
RAINHHMAX (mm)	15.83	27.73	16.40	10.90	1.27	4.63	0.00	0.27	5.33	0.00	14.90	12.43
SOLAR (MJ/m2/hari)	3.06	5.49	6.09	6.60	7.19	5.79	7.23	7.55	6.39	7.57	5.51	4.05
DEW (ºC)	86.97	87.46	86.16	85.50	82.77	83.20	81.32	81.55	82.90	79.13	84.10	86.58
WIND (m/s)	0.58	0.68	0.58	0.50	0.58	0.47	0.77	0.97	0.97	0.94	0.53	0.68

2. Stasiun Klimatologi Mlati

	Jan	Feb	Mar	Apr	Mei	Jun	Jul	Ags	Sep	Okt	Nov	Des
TMPMX (ºC)	29.95	30.71	31.25	32.12	31.98	31.17	30.34	30.05	31.04	32.65	31.33	30.33
TMPMN (ºC)	22.80	22.78	23.09	23.40	22.45	21.97	20.16	20.30	21.86	22.86	23.39	23.44
TMPSTDMX (ºC)	1.41	1.05	1.20	0.61	1.13	1.29	0.86	1.14	1.53	0.91	1.56	0.95
TMPSTDMN (ºC)	0.60	0.73	0.75	0.87	0.93	1.16	1.51	1.70	1.22	1.04	1.18	0.78
PCPMM (mm)	22.75	13.25	8.60	10.20	0.94	1.46	0.00	0.10	0.18	0.18	14.49	10.26
PCPSTD (mm)	31.00	23.14	17.22	16.20	2.23	4.23	0.00	0.40	0.56	0.72	26.27	19.27
PCPSKW	0.06	0.03	0.11	0.05	0.09	0.10	0.00	0.14	0.12	0.13	0.07	0.10
PRW1	1.00	0.50	0.50	0.40	0.16	0.12	0.00	0.07	0.15	0.07	0.38	0.55
PRW2	0.89	0.67	0.59	0.47	0.33	0.40	0.00	0.00	0.00	0.00	0.71	0.65
PCPD (mm)	27.00	18.00	17.00	15.00	6.00	5.00	0.00	2.00	4.00	2.00	17.00	20.00
RAINHHMAX (mm)	40.10	37.27	28.87	17.13	1.60	6.00	0.00	0.67	0.87	1.13	35.47	19.70
SOLAR (MJ/m2/hari)	3.52	5.24	6.30	6.81	7.82	6.77	8.22	8.06	6.85	7.82	4.86	3.85
DEW (ºC)	85.29	84.68	83.23	82.30	79.74	80.97	77.87	76.77	77.83	74.52	79.53	85.23
WIND (m/s)	1.58	1.61	1.52	1.27	1.52	1.23	1.81	1.81	2.00	2.35	2.20	2.42

Keterangan :

1. Temperatur maksimum (TMPMX) : yaitu temperatur maksimum harian rata-rata per bulan dalam sekian tahun pencatatan (ºC).

$$\mu mx_{bulan} = \frac{\sum_{d=1}^{N} T_{mx,bulan}}{N}$$

Dimana $T_{mx.bulan}$ adalah temperature maksimum harian selama pencatatan pada bulan tersebut (ºC) dan N adalah jumlah hari penghitungan temperatur maksimum pada bulan tersebut.

2. Temperatur minimum (TMPMN) : yaitu temperatur minimum harian rata-rata per bulan dalam sekian tahun pencatatan (ºC).

$$\mu mn_{bulan} = \frac{\sum_{d=1}^{N} T_{mn,bulan}}{N}$$

Dimana $T_{mn.bulan}$ adalah temperature minimum harian selama pencatatan pada bulan tersebut (ºC) dan N adalah jumlah hari penghitungan temperatur maksimum pada bulan tersebut.

3. Standar deviasi suhu maksimum harian (TMPSTDMX) : yaitu standar deviasi untuk temperatur maksimum harian per bulan dalam sekian tahun pencatatan.

$$\sigma mx_{bulan} = \sqrt{\frac{\sum_{d=1}^{N}(T_{mx,bulan} - \mu mx_{bulan})^2}{N-1}}$$

Dimana σmx adalah standar deviasi suhu maksimum, $T_{mx.bulan}$ adalah suhu maksimum harian pada bulan tertentu, μmx_{bulan} adalah rata-rata temperature harian maksimum untuk bulan tertentu (°C), kemudian N periode waktu (tahun).

4. Standar deviasi suhu minimum harian (TMPSTDMN) : yaitu standar deviasi untuk temperatur minimum harian per bulan dalam sekian tahun pencatatan.

$$\sigma mn_{bulan} = \sqrt{\frac{\sum_{d=1}^{N}(T_{mn.bulan} - \mu mn_{bulan})^2}{N-1}}$$

Dimana σmn adalah standar deviasi suhu minimum, $T_{mn.bulan}$ adalah suhu minimum harian pada bulan tertentu, μmn_{bulan} adalah rata-rata temperature harian minimum untuk bulan tertentu (°C), kemudian N periode waktu (tahun).

5. Curah hujan rata-rata (PCPMM) : yaitu rata-rata presipitasi bulanan (mm).

$$\bar{R}_{bulan} = \frac{\sum_{d=1}^{N} R_{har\ ,bulan}}{tahun}$$

Dimana $R_{hari,bulan}$ adalah curah hujan harian selama pencatatan pada bulan tersebut (mm) dan N adalah total hari pencatatan selama bulan tersebut yang digunakan untuk menghitung rata-rata, sedangkan tahun adalah jumlah tahun dari hujan harian pencatatan.

6. Standar deviasi untuk curah hujan harian (PCPSTD): standar deviasi untuk presipitasi harian per bulan.

$$\sigma_{bulan} = \sqrt{\frac{\sum_{d=1}^{N}(R_{hari,bulan} - \bar{R}_{bulan})^2}{N-1}}$$

Dimana σ_{bulan} adalah standar deviasi, $R_{hari,bulan}$ curah hujan harian pada bulan tertentu (mm), $\bar{R}_{bulan}$ adalah rata-rata curah hujan dalam satu bulan (mm) dan N adalah total bulan.

7. Koefisien *skewness* untuk curah hujan harian dalam satu bulan (PCPSKW) : yaitu koefisien skew untuk presipitasi harian per bulan

$$g_{bulan} = \frac{\sum_{d=1}^{N}(R_{hari,bulan} - \bar{R}_{bulan})^3}{(N-1)(N-2)(\sigma_{bulan})^3}$$

Dimana g_{bulan} adalah koefisien *skewness* dari presipitasi dalam satu bulan, $R_{hari,bulan}$ adalah curah hujan harian pada bulan tertentu selama N tahun (mm), $\bar{R}_{bulan}$ adalah curah hujan rata-rata pada bulan tertentu selama N tahun (mm), N adalah total tahun, σ_{bulan} adalah standar deviasi bulan tertentu.

8. Perbandingan kemungkinan hari basah setelah hari kering dalam satu bulan dengan jumlah hari kering dalam satu bulan (PR_W1)

$$P_i({}^{W}/_{D}) = \frac{hari_{{}^{W}/_{D,i}}}{hari_{kering,i}}$$

Dimana $hari_{{}^{W}/_{D,i}}$ adalah jumlah hari basah yang diikuti hari kering, dan $hari_{kering,i}$ adalah jumlah hari kering selama periode pencatatan.

9. Perbandingan kemungkinan hari basah setelah hari kering dalam satu bulan dengan jumlah hari kering dalam satu bulan (PR_W2)

$$P_i({}^{W}/_{W}) = \frac{hari_{{}^{W}/_{W}}}{hari_{basah,i}}$$

Dimana $hari_{{}^{W}/_{W,i}}$ adalah jumlah hari basah yang diikuti hari basah, dan $hari_{basa\ ,i}$ adalah jumlah hari basah selama periode pencatatan.

10. Jumlah hujan rata-rata pada bulan tertentu selama n tahun (PCPD)

$$\bar{d} = \frac{hari_{basah,i}}{tahun}$$

Dimana $hari_{basah,i}$ adalah jumlah dari hari basah di bulan tertentu selama seluruh periode pencatatan.

11. Hujan setengah jam maksimum dalam seluruh periode pengukuran dalam satu bulan Jumlah curah hujan maksimum dalam setengah jam (RAINHHMX) : yaitu sepertiga dari curah hujan maksimum dalam satu bulan.
12. Radisi matahari (SOLARAV) : yaitu rata-rata radiasi matahari per bulan (MJ/m^2/hari).

$$\mu radiasi_{bulan} = \frac{\sum_{d=1}^{N} H_{hari,bulan}}{H_{hari,bulan}}$$

Dimana $H_{hari,bulan}$ adalah total radiasi matahari mencapai permukaan tanah untuk hari dan bulan tertentu, dan N adalah nilai total dari radiasi harian yang tercatat dalam sebulan di bulan tertentu.

13. DEW point (DEWPT) : yaitu rata-rata temperatur titik beku per bulan (°C).

$$\mu dew_{bulan} = \frac{\sum_{d=1}^{N} T_{dew,bulan}}{N}$$

Dimana $T_{dew,bulan}$ adalah suhu titik embun untuk hari tertentu dalam bulan tertentu (°C), sedangkan N adalah nilai total dari titik embun harian yang tercatat dalam sebulan di bulan tertentu.

14. Kecepatan angin (WNDAV) : yaitu rata-rata kecepatan angin harian per bulan (m/s).

$$\mu angin_{bulan} = \frac{\sum_{d=1}^{N} \mu angin_{bulan}}{N}$$

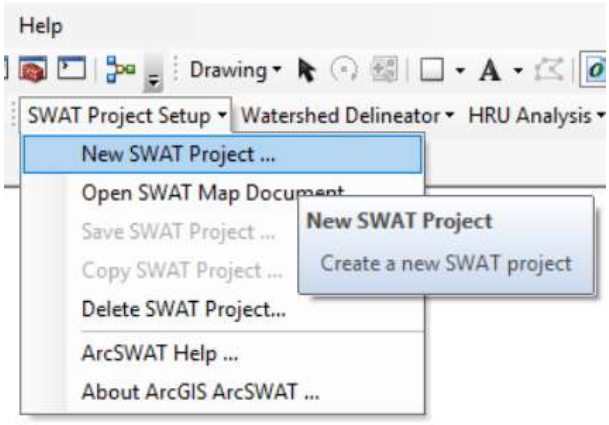
Dimana $\mu angin_{bulan}$ adalah rata-rata kecepatan angin selama hari tertentu dalam sebulan (m/s) dan N adalah nilai total dari kecepatan angin rata-rata selama sebulan pencatatan di bulan tertentu.

Lampiran 2. Langkah-Langkah Analisis Model SWAT

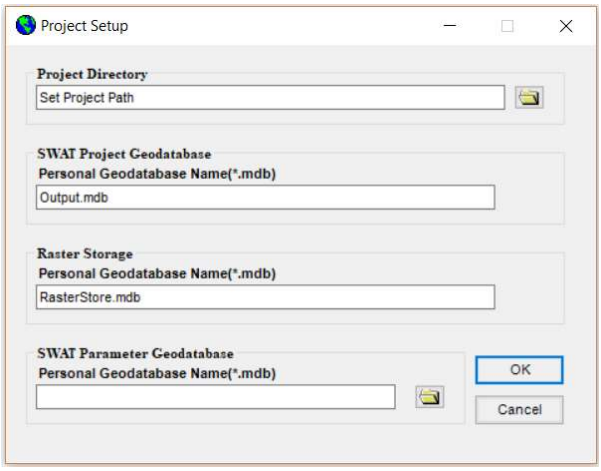
1. Persiapan Pemodelan SWAT

Tahap persiapan dalam memulai pemodelan SWAT diantaranya mengatur wilayah, bahasa dan *keyboard* pada komputer yang digunakan untuk pemodelan diatur menjadi *English* (*United States*). Hal ini dikarenakan program SWAT merupakan program yang dikembangkan dan diperkenalkan oleh Departemen Pertanian Amerika Serikat. Serta membuat *project* baru untuk pemodelan SWAT yang terdapat pada menu *SWAT Project Setup*. *SWAT Project Setup* berfungsi untuk membuat *project SWAT*, membuka *project SWAT* , menghapus *project SWAT* serta terdapat informasi tentang *arcGIS arcSWAT*.

Tahap pertama yang dilakukan dalam membuat *project* baru dengan cara klik *New Project SWAT* kemudian tentukan tempat penyimpanan file *project* SWAT yang terdapat pada *Project Directory*. Dalam penentuan penyimpanan data SWAT perlu diperhatikan bahwa data SWAT dapat disimpan hanya pada *Folder C* saja. Hal ini dikarenakan SWAT akan mengimpor basis data (*Database*) kedalam folder yang ditentukan dan tidak akan beroperasi atau terjadi *error* jika file data pemodelan SWAT disimpan selain *Folder C*.



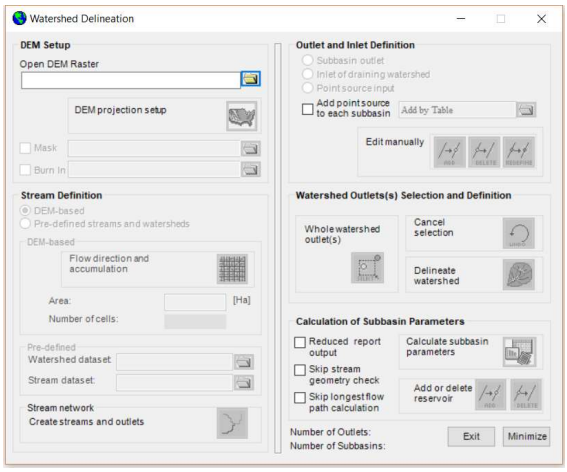
Gambar 3.2 Tampilan perintah *SWAT Project Setup*



Gambar 3.3 Tampilan Perintah *New Project SWAT*

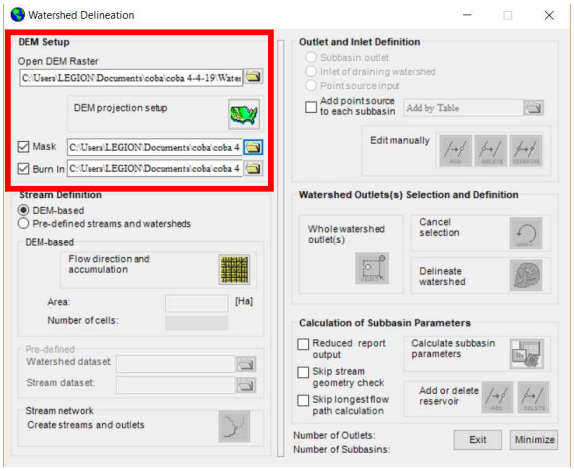
2. Membentuk DAS

Untuk membentuk DAS terdapat pada menu *Watershed Delineator*. *Watershed Delineator* merupakan proses penetuan atau penggambaran suatu DAS yang berfungsi untuk mengalirkan air yang berasal dari curah hujan menjadi limpasan (*runoff*) menuju ke satu titik luaran (*outlet*). Pada pemodelan SWAT *Watershed Delineator* atau delineasi DAS yang dibentuk secara otomatis oleh *software* SWAT. Ada beberapa perintah dalam menu *Watershed Delineator* diantaranya yaitu *DEM Setup*, *Stream Definition*, *Watershed Outlets Selection and Definition* dan *Calculation of Subbasin Parameters*. Data yang digunakan untuk *Watershed Delineator* yaitu data DEM wilayah yang ditinjau, DEM daerah aliran sungai (DAS) dan aliran sungai.



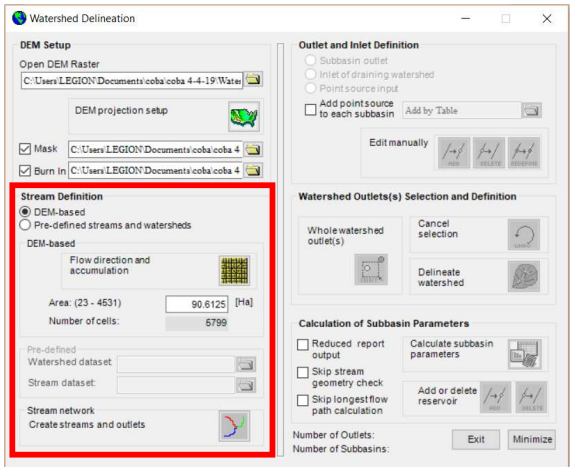
Gambar 3.4 Tampilan menu *Watershed Delineator*

Tahap awal yaitu *DEM Setup* merupakan pengaturan DEM, pada tahap ini data DEM yang digunakan harus dalam proyeksi sistem koordinat *Universal Tansverse Mercator* (UTM) kemudian pada DEM *projection setup* pada bagian *Z Unit* pilih satuan meter. Untuk mempercepat proses dalam pembuatan delineasi gunakan perintah *Mask* lalu *checklist* kemudian masukan data DEM DAS dalam bentuk format *raster* dan proyeksi sistem koordinat UTM. Kemudian untuk menyesuaikan sungai yang dibentuk oleh SWAT dengan kondisi eksisting maka klik perintah *Burn in* lalu *checklist*, dan masukkan data aliran sungai yang diperoleh dalam bentuk format *vektor* atau *shapefile*.



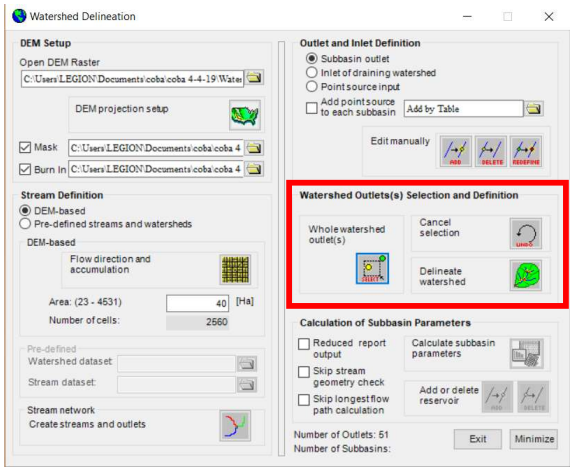
Gambar 3.5 Menu perintah *DEM Setup*

Tahap kedua yaitu *Stream Definition* merupakan penentuan jaringan sungai dimana terdiri dalam dua tahap yaitu *Flow Direction and Accumulation* dan *Stream Network* (*create streams and outlets*). *Flow Direction and Accumulation* berfungsi untuk menghilangkan *sink* (cacat) pada data DEM serta proses pembuatan arah aliran air dan menghitung akumulasi aliran air. Pada tahap tersebut untuk mendapatkan hasil yang sesuai kondisi eksisting maka pada kotak teks disebelah kanan tulisan *Area* masukkan nilai dengan satuan hektar yang di inginkan dimana sudah terdapat nilai dari terkecil hingga terbesar, semakin kecil nilai yang ditentukan maka semakin rinci jaringan aliran yang dibentuk oleh model SWAT. Selanjutnya pilih *Stream Network* untuk pembuatan jaringan sungai dan *outlet*.



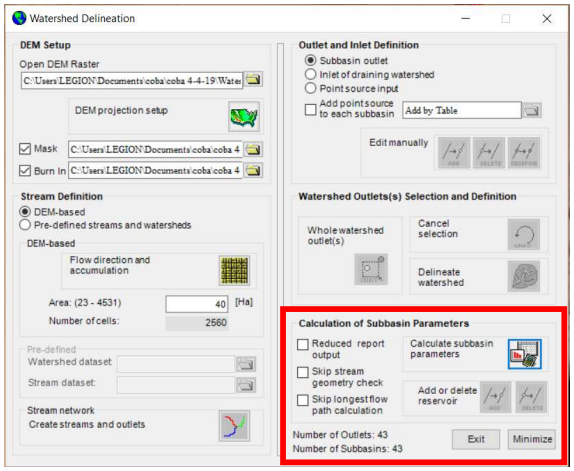
Gambar 3.6 Menu Perintah *Stream Definition*

Tahap ketiga yaitu *Watershed Outlets Selection and Definition*, pada tahap ini merupakan penentuan titik *outlet* suatu sungai yang akan di analisa kondisi DAS nya. Untuk menentukannya klik perintah *Whole Watershed Outlets(s)* kemudian pilih titik *outlet* yang ditentukan. Setelah titik *outlet* ditentukan selanjutnya pilih *Delineate Watershed* untuk pembuatan DAS secara otomatis dalam pemodelan SWAT.



Gambar 3.7 Menu perintah *Watershed Outlets Selection and Definition*

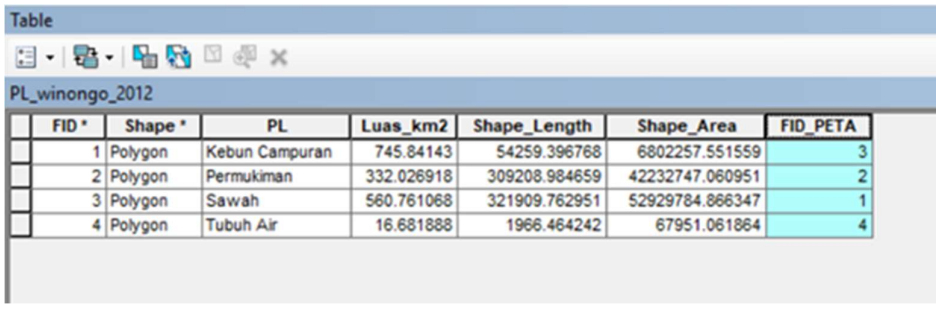
Setelah proses delineasi DAS terbentuk, selanjutnya yaitu *Calculation of Subbasin Parameters* merupakan tahap terakhir dalam menu *Watershed Delineator*. *Calculation of Subbasin Parameters* yaitu perhitungan parameter setiap sub-DAS.



Gambar 3.8 Menu perintah *Calculation of Subbasin Parameters*

3. *Input* Data Tata Guna Lahan (*Land Use*)

Data yang digunakan untuk penggunaan lahan (*land use*) bisa dengan format *ESRI grid* (*raster*), *shapfile* (*vektor*), maupun *geodatabase feature class* serta sistem koordinat data yang digunakan yaitu harus dalam *Projected Coordinate Systems*. Adapun data yang digunakan untuk penelitian ini yaitu dengan format *shapefile* (*vektor*) sehingga sebelum memasukkan data penggunaan lahan (*land use*) ada beberapa hal yang harus dipersiapkan diantaranya yaitu memasukkan data penggunaan lahan ke dalam *layer ArcGIS*. Kemudian menambahkan *field integer* pada *Attribute Table* di *ArcGIS* dengan nama FID_PETA di isikan dengan angka misalnya 1, 2, 3 dan seterusnya untuk setiap jenis data penggunaan lahan (*land use*). Hal ini angka-angka tersebut akan digunakan dalam pemodelan SWAT untuk input data tata guna lahan.



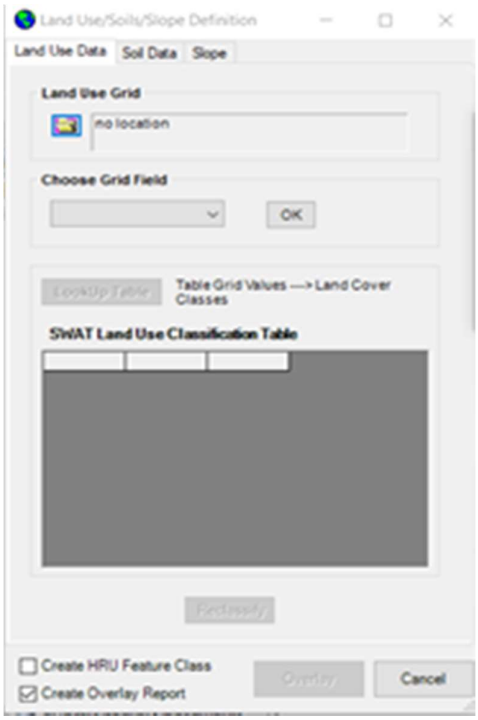
FID *	Shape *	PL	Luas_km2	Shape_Length	Shape_Area	FID_PETA
1	Polygon	Kebun Campuran	745.84143	54259.396768	6802257.551559	3
2	Polygon	Permukiman	332.026918	309208.984659	42232747.060951	2
3	Polygon	Sawah	560.761068	321909.762951	52929784.866347	1
4	Polygon	Tubuh Air	16.681888	1966.464242	67951.061864	4

Gambar 3. 9 Menambahkan *field integer* pada *attribute table* di *ArcGIS*

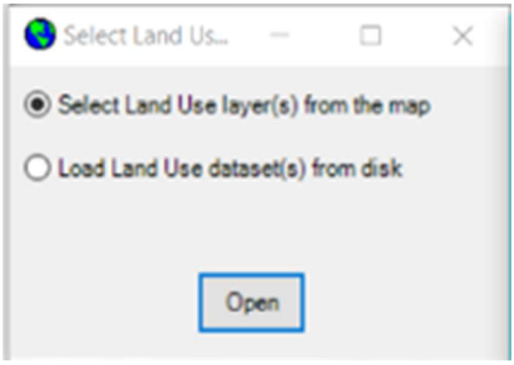
Pada data tata guna lahan yang digunakan dalam pemodelan SWAT menggunakan bahasa asing serta disingkat sehingga data tersebut disebut dengan

kode penggunaan lahan. Data yang digunakan oleh penulis dalam bentuk bahasa Indonesia sehingga harus menyesuaikan dengan data tata guna lahan yang digunakan oleh SWAT. Untuk menyesuaikan data tersebut didapat dari situs https://swat.tamu.edu/media/69419/Appendix-A.pdf.

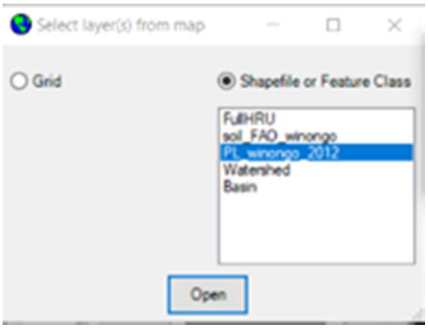
Setelah data tata guna lahan (Land Use) telah di siapkan dan sesuai dengan data yang digunakan oleh SWAT, langkah selanjutnya adalah *input* data tata guna lahan (*land use*) ke dalam pemodelan SWAT. Untuk *input* data *landuse* gunakan menu *HRU Analysis* > *Land Use* / *Soils* / *Slope Definition* > *Land Use Data* > *Land Use Grid* > *Select Land Use layer(s) from the map* > *Shapefile or Feature Class* > pilih data land use yang sudah di masukkan di *layer ArcGIS*. Pada *Pick field grid code values* masukan nama *field* yang telah dibuat yaitu FID_PETA karena SWAT hanya membaca data *land use* dari nilai angka kemudian SWAT akan memberikan keterangan data *land use* yang di *overlap* terhadap DAS yang ditinjau. Pada *Choose Grid Field* pilih "*Value*" lalu klik OK sehingga akan muncul tabel klasifikasi *land use* untuk SWAT. Kemudian pilih *LookUp Table* > *User Table* > pilih data *land use* untuk SWAT dengan format teks (*notepad*) > *Reclassify* untuk memasukkan data atau *import* data *land use* kedalam basis data SWAT (*SWAT Database*) yang sudah di buat pada folder yang telah ditentukan.



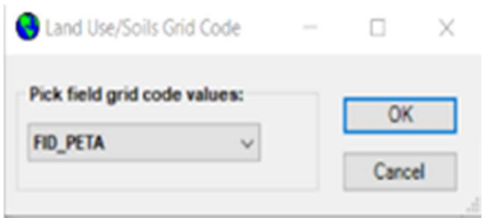
Gambar 3.10 Tampilan menu *Land Use* / *Soils* / *Slope Definition*



Gambar 3.11 Langkah-langkah *input* data tata guna lahan

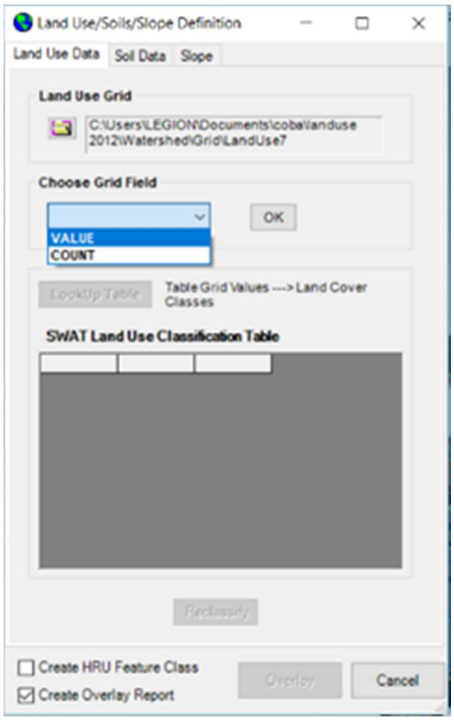


Gambar 3.12 Langkah-langkah *input* data tata guna lahan

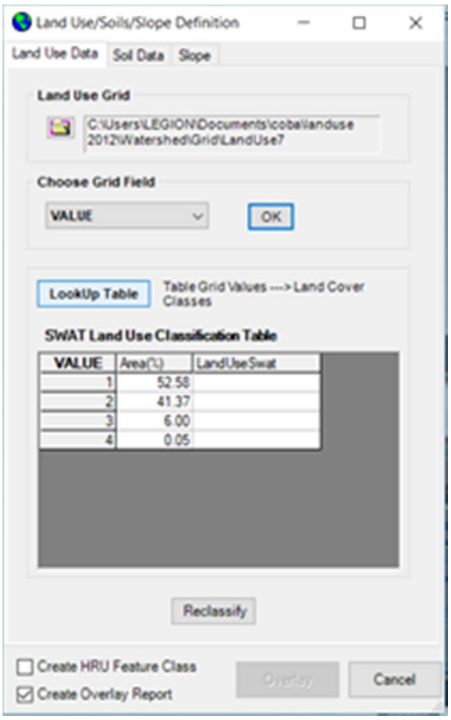


Gambar 3.13 Langkah-langkah *input* data tata guna lahan

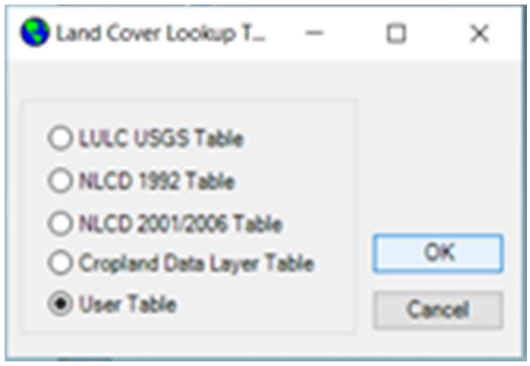
Gambar 3.14 Informasi hasil dari *overlap land use* terhadap DAS



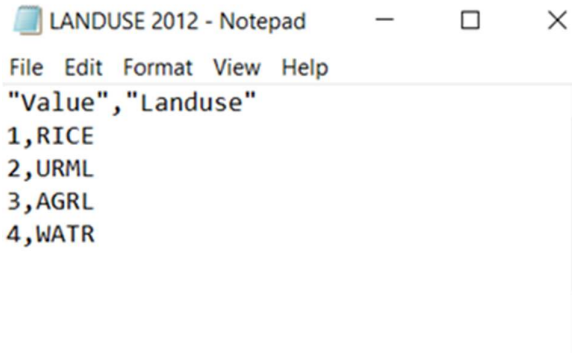
Gambar 3.15 Langkah-langkah *input* data tata guna lahan



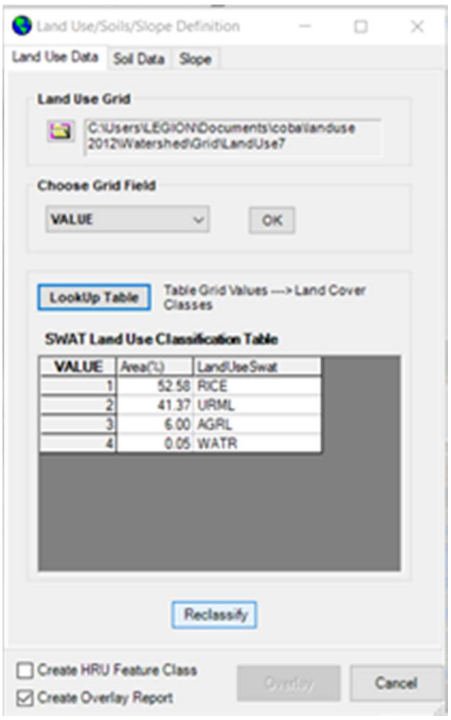
Gambar 3.16 Langkah-langkah *input* data tata guna lahan



Gambar 3.17 Langkah-langkah *input* data tata guna lahan



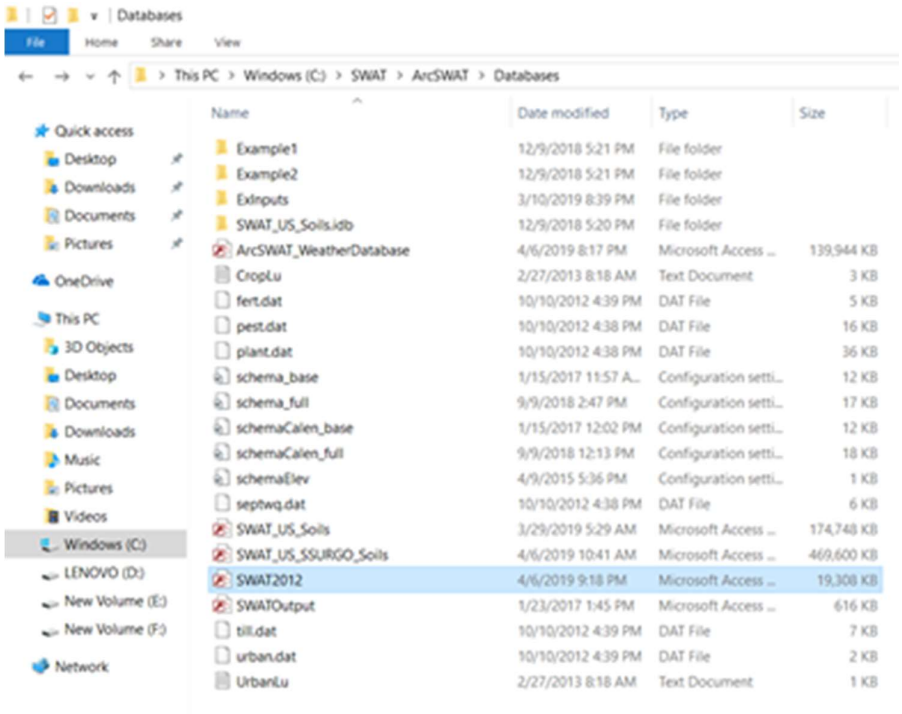
Gambar 3.18 Data *land use* untuk SWAT



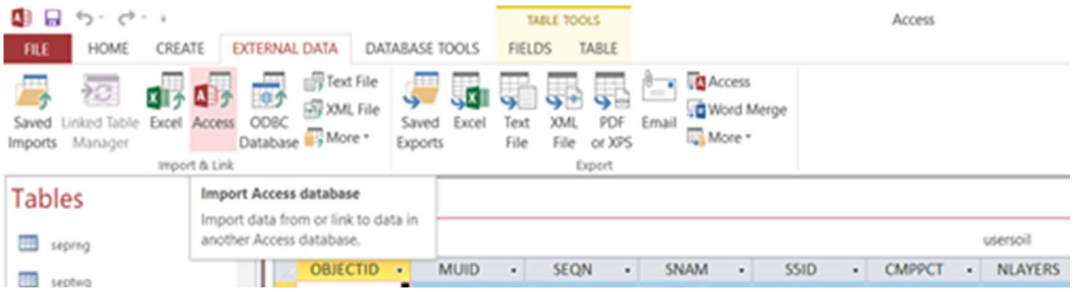
Gambar 3.19 Langkah-langkah *input* data tata guna lahan

4. *Input* Data Tanah

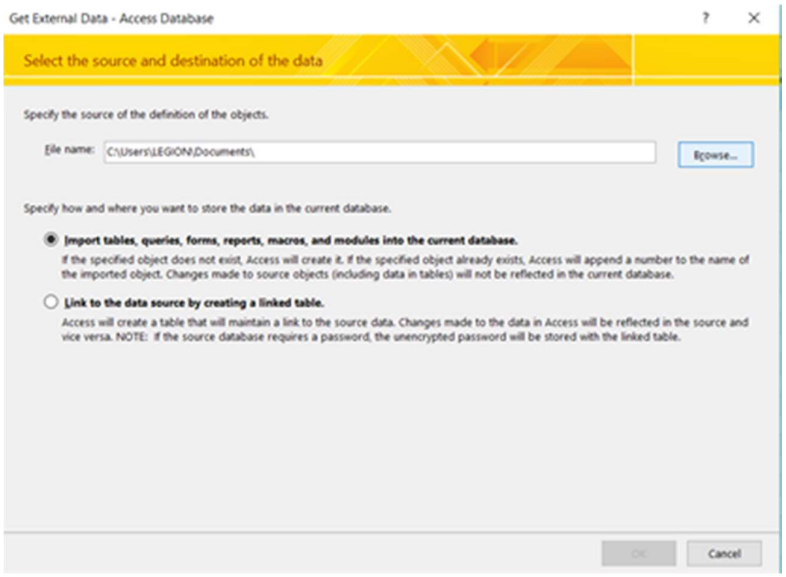
Sebelum *input* data tanah ada beberapa hal yang harus disesuaikan yaitu nama jenis tanah yang terdapat pada SWAT masih berbeda dengan nama tanah yang berasal dari FAO. Untuk menyesuaikan data yang digunakan yaitu dengan cara *import* data tanah (*User Soil*) dari *MapWindow SWAT* atau biasa disebut dengan *MWSWAT* ke data tanah (*User Soil*) yang digunakan untuk penelitian yaitu *ArcSWAT*. Langkah pertama yang dilakukan yaitu buka File *Microsoft Access Database* dengan nama SWAT 2012 dari folder *ArcSWAT* di folder C > pilih *User Soil* > *External Data* > *Import Access Database* > pilih folder *MWSWAT* > pada *Import Object* pilih *UserSoil* setelah itu *input* data tanah bisa dilakukan.



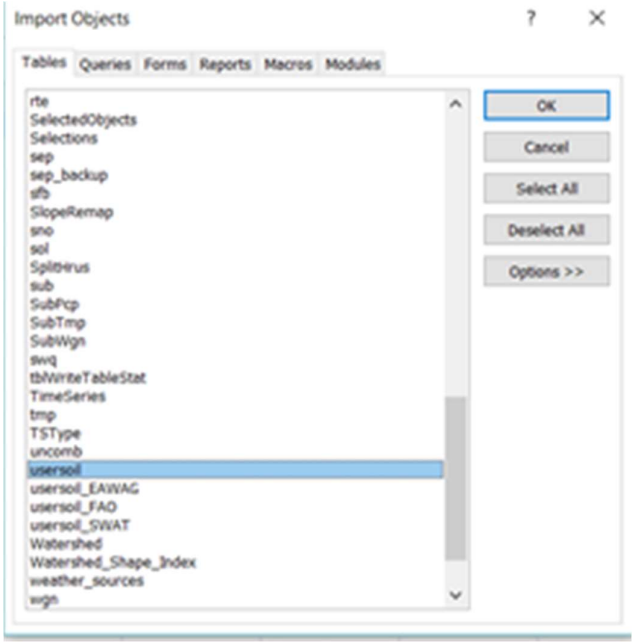
Gambar 3. 20 Langkah-langkah menyesuaikan data tanah pada SWAT



Gambar 3.21 Langkah-langkah menyesuaikan data tanah pada SWAT



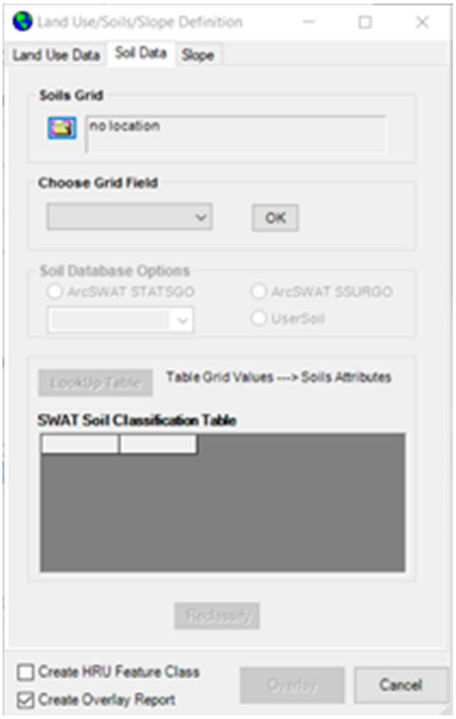
Gambar 3.22 Langkah-langkah menyesuaikan data tanah pada SWAT



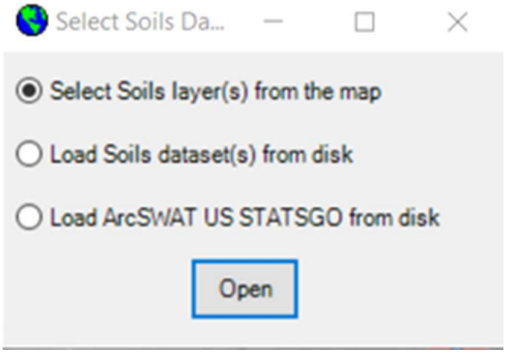
Gambar 3.23 Langkah-langkah menyesuaikan data tanah pada SWAT

Untuk input data tanah caranya sama seperti input data penggunaan lahan yang telah dilakukan yaitu dengan cara masukkan terlebih dahulu data tanah kedalam *layer map ArcGIS* kemudian pilih menu perintah *Soil Data* > *Soil Grid* > *Select Soil layer(s) from the map* > *Shapefile or Feature Class* > pilih data tanah yang sudah terlebih dahulu dimasukkan ke dalam *layer ArcGIS* > pada

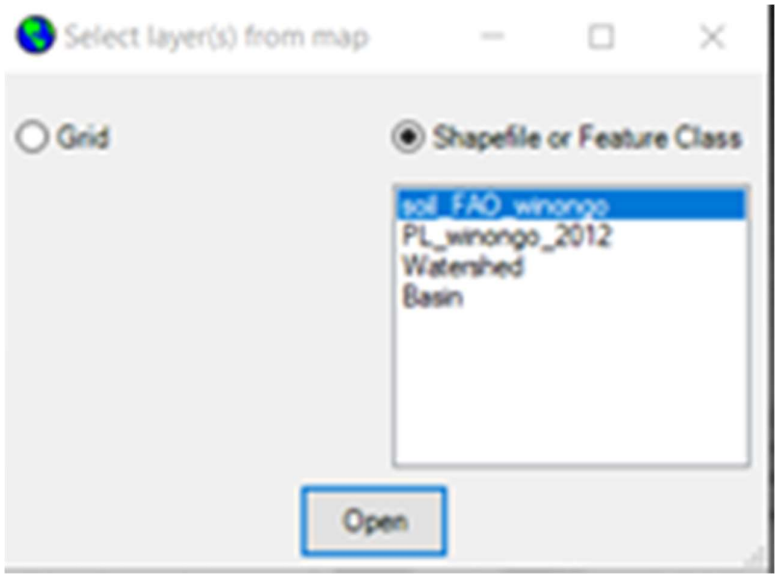
Choose Grid Field pilih *Value* > *Lookup Table* > *User Table* > pilih data tanah yang telah ditentukan dalam format teks (*notepad*) > *Reclasssify*.



Gambar 3.24 Tampilan menu *Soil Data*

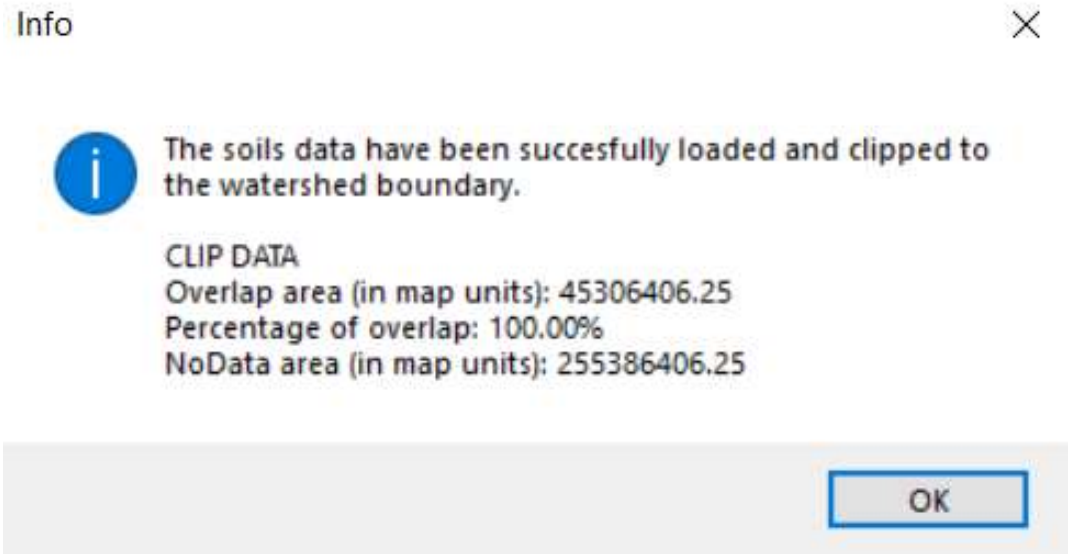


Gambar 3.25 Langkah-langkah *input* data tanah

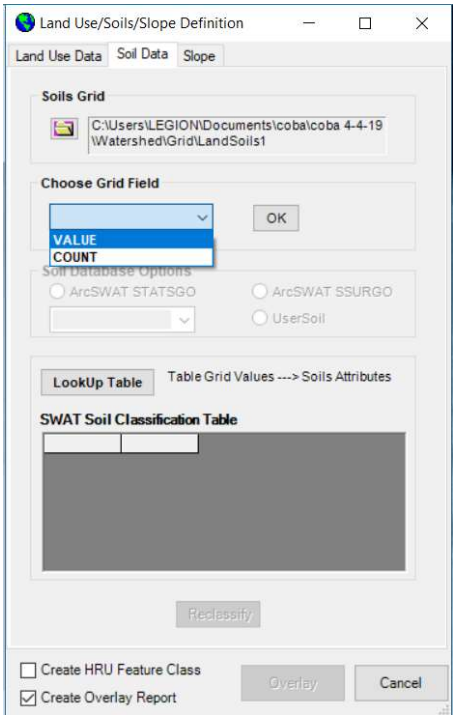


Gambar 3.26 Langkah-langkah *input* data tanah

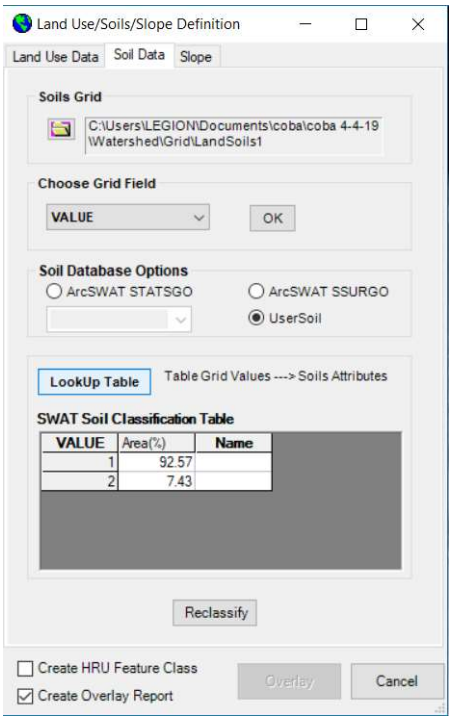
Gambar 3.27 Langkah-langkah *input* data tanah



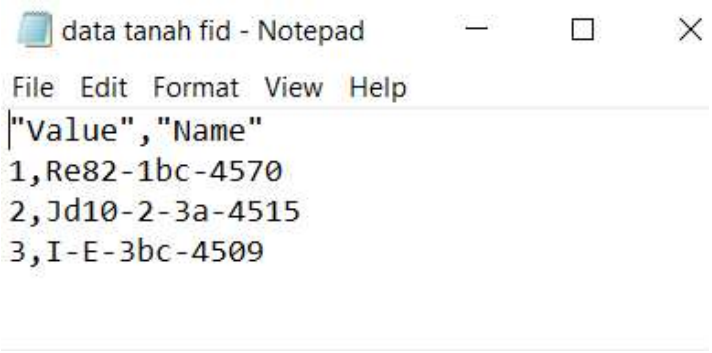
Gambar 3.28 Informasi hasil dari *overlap land use* terhadap DAS



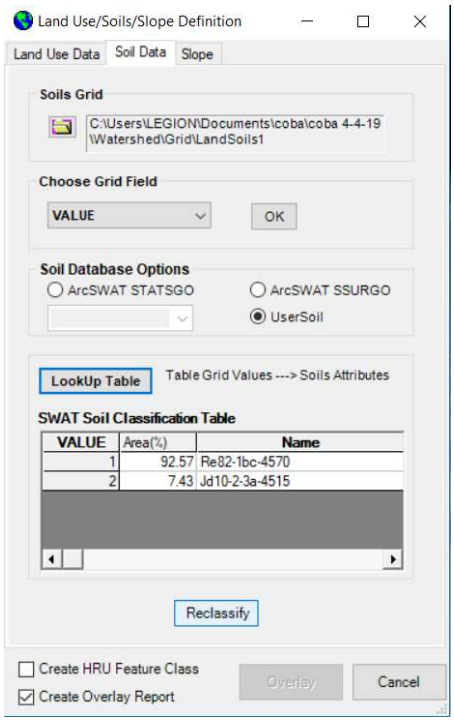
Gambar 3.29 Langkah-langkah *input* data tanah



Gambar 3.30 Langkah-langkah *input* data tanah



Gambar 3.31 Data tanah untuk SWAT

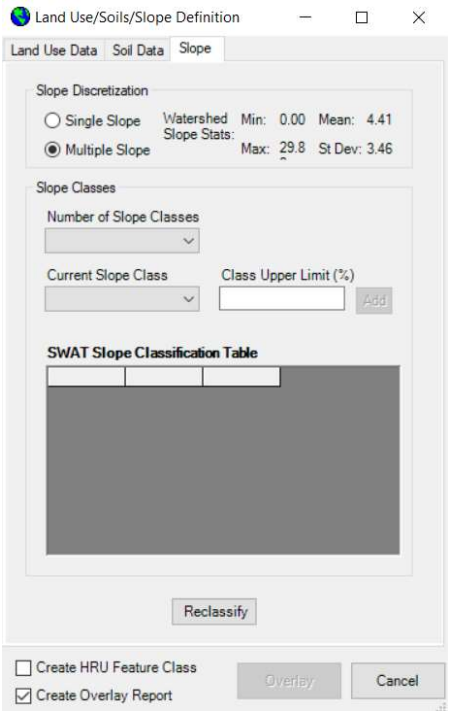


Gambar 3.32 Langkah-langkah *input* data tanah

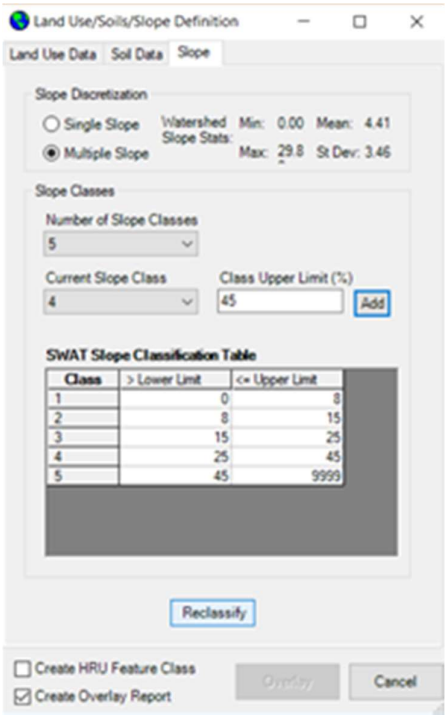
5. Menentukan Kelas Kemiringan Lereng (*Slope*)

Data selanjutnya yang di masukkan yaitu *input* data kemiringan lereng (*Slope*). Pada *Slope Discretization* pilih *Multiple Slope* karena pada daerah yang ditinjau terdapat lima kelas kemiringan lereng yang mengacu pada Pedoman Penyusunan Rehabilitasi Lahan dan Konservasi tahun 1986. Selanjutnya pada *Number of Slope Classes* pilih angka 5 seperti yang diuraikan sebelumnya kemudian tambahkan satu persatu kelas kemiringannya dalam bentuk persen pada menu *Current Slope Class* dan *Class Upper Limit (%)*. Setelah semua data kemiringan lereng ditambahkan kemudian klik *Reclasssify* setelah itu klik

Overlay untuk menggabungkan semua data dari penggunaan lahan, tanah dan kemiringan (*slope*) menjadi satu.



Gambar 3.33 Langkah-langkah menentukan kelas kemiringan lahan



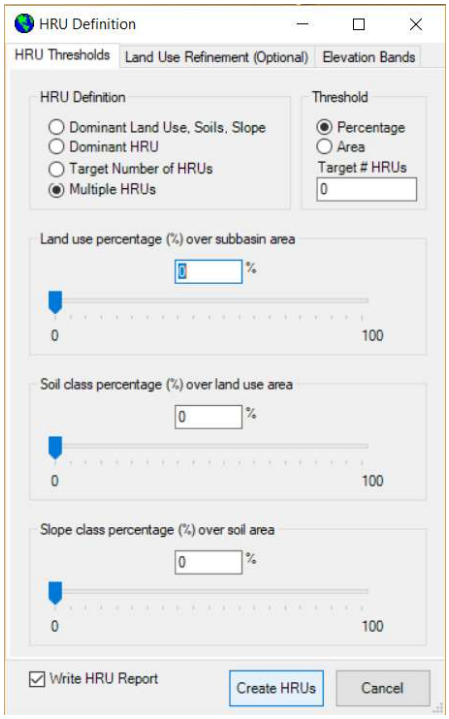
Gambar 3.34 Langkah-langkah menentukan kelas kemiringan lahan

6. Analisis HRU

Setelah data penggunaan lahan (*land use*), tanah (*soil*) dan kemiringan lereng (*slope*) di *import* ke SWAT Database kemudian di *Overlay*, selanjutnya klik perintah *HRU Definition* yang berfungsi untuk menentukan kriteria yang digunakan dalam menentukan distribusi HRU. HRU definition memberikan 3 opsi untuk dipilih yaitu Dominant Land Use, Soils, Slope, Dominant HRU, dan Multiple HRU.

a. Dominant *Land Use, Soils, Slope* akan membuat satu HRU untuk setiap subbasin, penggunaan *land use, soils*, dan *slope* yang dominan disetiap subbasin akan disimulasikan dalam HRU.
b. Dominant HRU akan membuat satu HRU untuk setiap subbasin, dominasi kombinasi unik dari penggunaan *land use, soils*, dan *slope* yang dominan disetiap subbasin akan disimulasikan dalam HRU.
c. Multiple HRU akan membuat beberapa HRU disetiap subbasin, opsi ini dipilih secara *default* jika *Dominant Land Use, Soils*, *Slope* dan Dominant HRU tidak dipilih.

Penelitian ini menggunakan HRU defitinion tipe Multiple HRU. Setelah itu klik perintah *HRU Thresholds* dan pilih *Multiple HRUs* karena seluruh HRU yang dibentuk akan digunakan dalam analisis SWAT. Pada *Multiple HRUs* kita dapat menentukan berapa persen dominan dari penggunaan lahan, tanah dan kemiringan lereng terhadap daerah sub-DAS. Pada penelitian ini semua data penggunaan lahan, tanah dan kemiringan lereng menggunakan nilai 0% hal ini dikarenakan seluruh data digunakan dalam proses pembentukan HRU disetiap sub-DAS. Selanjutnya klik *Create HRU* dan HRU akan terbentuk. Setelah HRU terbentuk klik *HRU Analysis Report* > *Final HRU Distribution* sehingga hasil dari definisi HRU memberikan deskripsi yang rinci tentang penggunaan lahan, tanah dan kelas lereng pada setiap sub-DAS.



Gambar 3.35 Tampilan menu *HRU Definition*

HRULandUseSoilsReport proj1 - Notepad

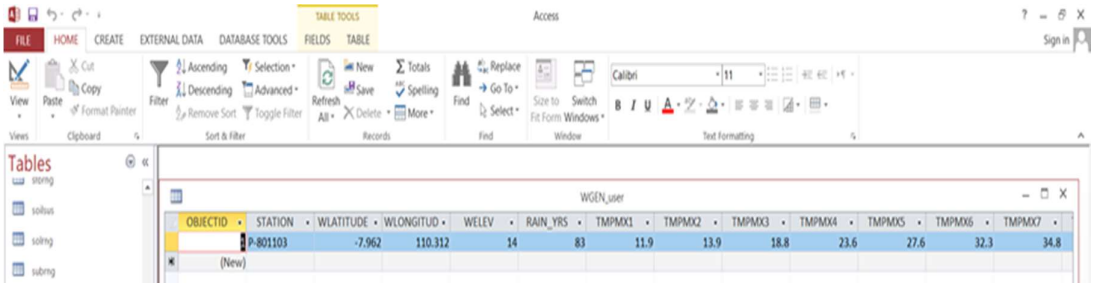
File Edit Format View Help

```
SWAT   model  simulation   Date: 5/18/2019 12:00:00 AM   Time: 00:00:00
MULTIPLE HRUs  LandUse/Soil/Slope OPTION             THRESHOLDS : 0 / 0 / 0 [%]
Number of HRUs: 313
Number of Subbasins: 21

                                                  Area [ha]          Area[acres]

Watershed                                         6803.9828           16812.9817

                                                  Area [ha]          Area[acres] %Wat.Area
LANDUSE:
                                  Rice --> RICE   3130.7509           7736.2419     46.01
                           Residential --> URBN   3289.0735           8127.4650     48.34
          Agricultural Land-Generic --> AGRL       280.6822            693.5798      4.13
        Agricultural Land-Row Crops --> AGRR        29.5883             73.1140      0.43
                         Range-Brush --> RNGB        19.8127             48.9582      0.29
                          Industrial --> UIDU         3.6486              9.0159      0.05
                       Range-Grasses --> RNGE         3.4834              8.6077      0.05
                               Water --> WATR        46.9433            115.9992      0.69

SOILS:
                            Re82-1bc-4570        6275.4284          15506.8974     92.23
                              I-E-3bc-4509         22.0638             54.5208      0.32
                            Jd10-2-3a-4515        506.4905           1251.5635      7.44

SLOPE:
                                    15-25         350.0542            865.0014      5.14
                                     0-8         4511.4303          11147.9699     66.31
                                     8-15        1928.7712           4766.0900     28.35
                                    25-45          13.5619             33.5120      0.20
                                   45-9999          0.1652              0.4083      0.00
```

Gambar 3.36 Hasil dari *HRU Analysis Reports*

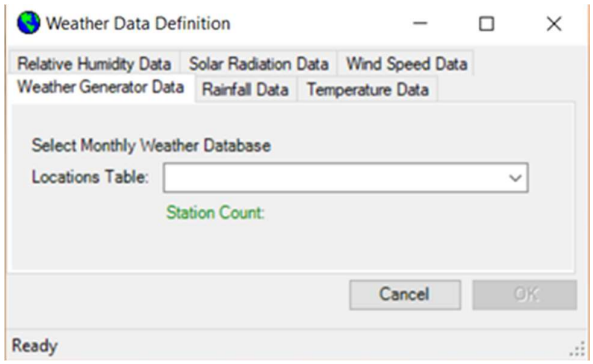
7. Input Data Cuaca

Setelah distribusi HRU telah ditetapkan, maka data cuaca dapat dimasukkan ke dalam pemodelan SWAT. Data cuaca dapat dimasukkan pada menu perintah pertama dari menu *Write Input Tables* yaitu *Weather Data Stations*. Sebelum memasukkan data cuaca, pengguna terlebih dahulu mengatur format cuaca dengan mengganti nama stasiun, letak geografis dan elevasi pada *Database* SWAT yaitu pada file *wgen_user*. Pada *Weather Data Stations* tersebut data yang dimasukkan ke dalam pemodelan yaitu lokasi stasiun cuaca dalam format teks (*notepad*) sehingga SWAT akan menghubungkan data lokasi stasiun dengan data cuaca yang telah dalam bentuk format teks (*notepad*). Data cuaca yang dibutuhkan untuk pemodelan SWAT yaitu curah hujan, suhu, kelembapan relatif, radiasi sinar matahari dan angin.

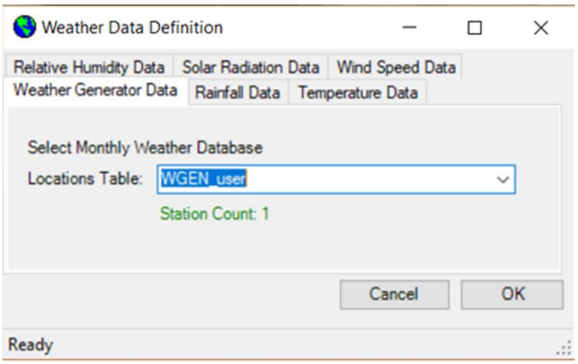


Gambar 3.37 Mengatur data cuaca pada SWAT *Database*

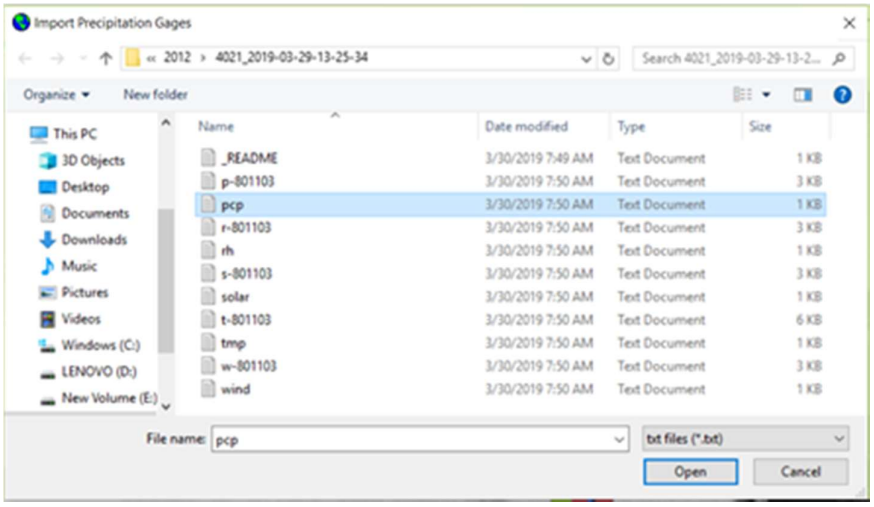
Setelah format dalam input data cuaca telah sesuai langkah selanjutnya pilih perintah *Weather Data Stations* > *Weather Generator Data* lalu pilih WGEN_user merupakan data cuaca yang telah di atur sebelumnya serta untuk wilayah diluar Amerika Serikat. Kemudian input data curah hujan, suhu, kelembapan relatif, radiasi sinar matahari dan angin caranya sama yaitu pilih folder lokasi stasiun dalam format teks (*notepad*) maka SWAT akan menghubungkan dengan sendirinya data-data cuaca yang telah disediakan dalam format teks (*notepad*). Untuk memudahkan *input* lokasi stasiun dari setiap data cuaca maka lokasi dinamakan dengan nama data yang dibutuhkan dengan data stasiun yang sama. Untuk data seperti kelembapan relatif, radiasi sinar matahari dan angin bisa menggunakan simulasi apabila daerah yang di analisa tidak terdapat data tersebut.



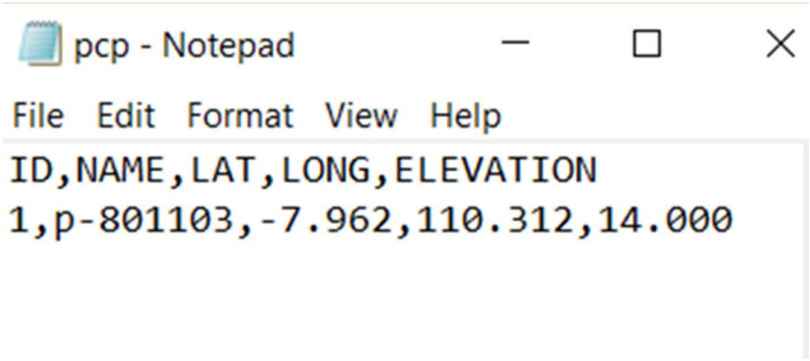
Gambar 3.38 Tampilan menu *Weather Data Stations*



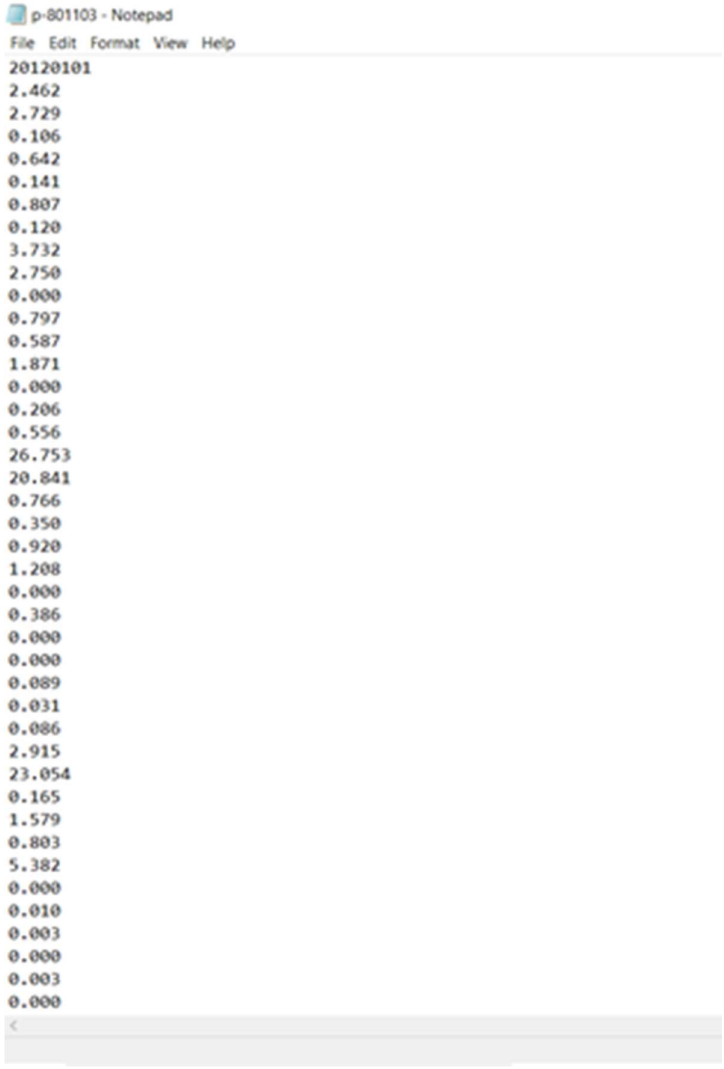
Gambar 3.39 Pilih WGEN_user



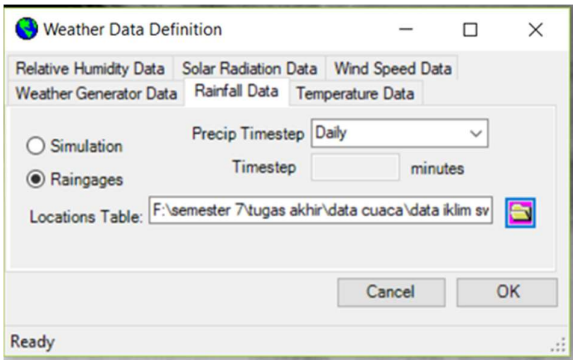
Gambar 3.40 Pilih stasiun dalam *input* data cuaca



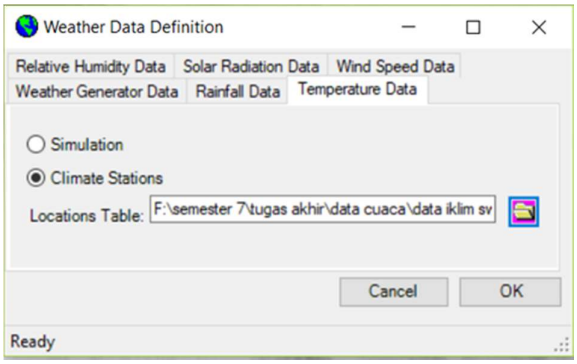
Gambar 3.41 Contoh format data stasiun cuaca untuk SWAT



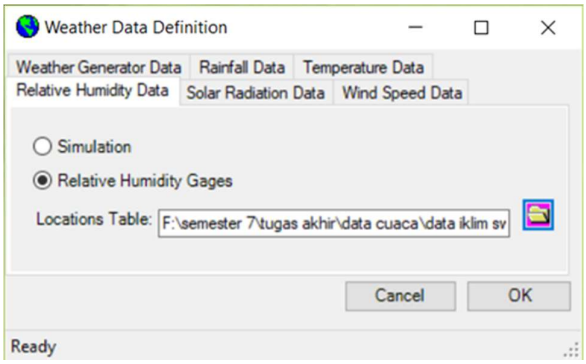
Gambar 3.42 Contoh format salah satu data cuaca untuk SWAT



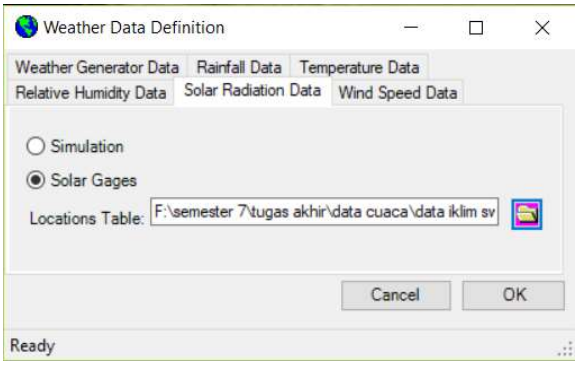
Gambar 3.43 Tampilan untuk *input* data curah hujan



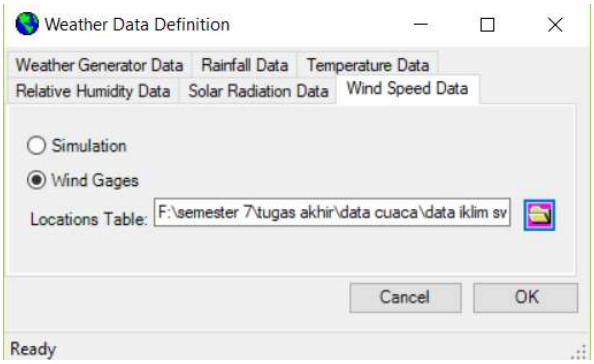
Gambar 3.44 Tampilan untuk *input* data Suhu



Gambar 3.45 Tampilan untuk *input* data kelembapan relatif



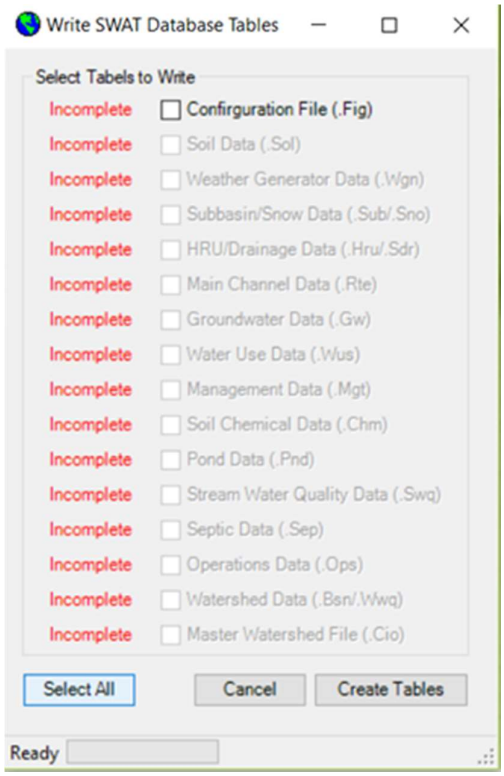
Gambar 3.46 Tampilan untuk *input* data radiasi sinar matahari



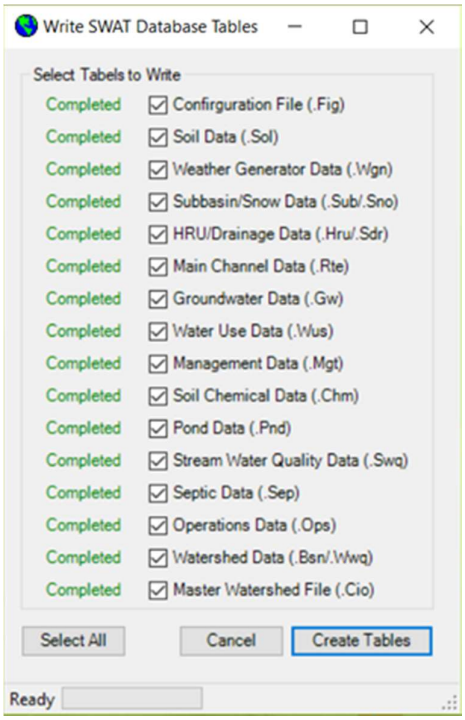
Gambar 3.47 Tampilan untuk *input* data angin

8. Membuat Data *Input* SWAT

   Setelah semua data yang dibutuhkan telah di *input*, maka langkah selanjutnya yaitu memasukkan data yang telah di input ke dalam basis data (*database*) SWAT berupa tabel . Untuk membuat data *input* gunakan perintah *Write SWAT Input Tables* yang terdapat pada menu *Write Input Tables*. Pada perintah *Write SWAT Input Tables* pilih *Select All* kemudian *Create Tables* sehingga SWAT akan secara otomatis membuat tabel *input* data SWAT dan tersimpan pada folder yang telah ditentukan untuk pemodelan SWAT.



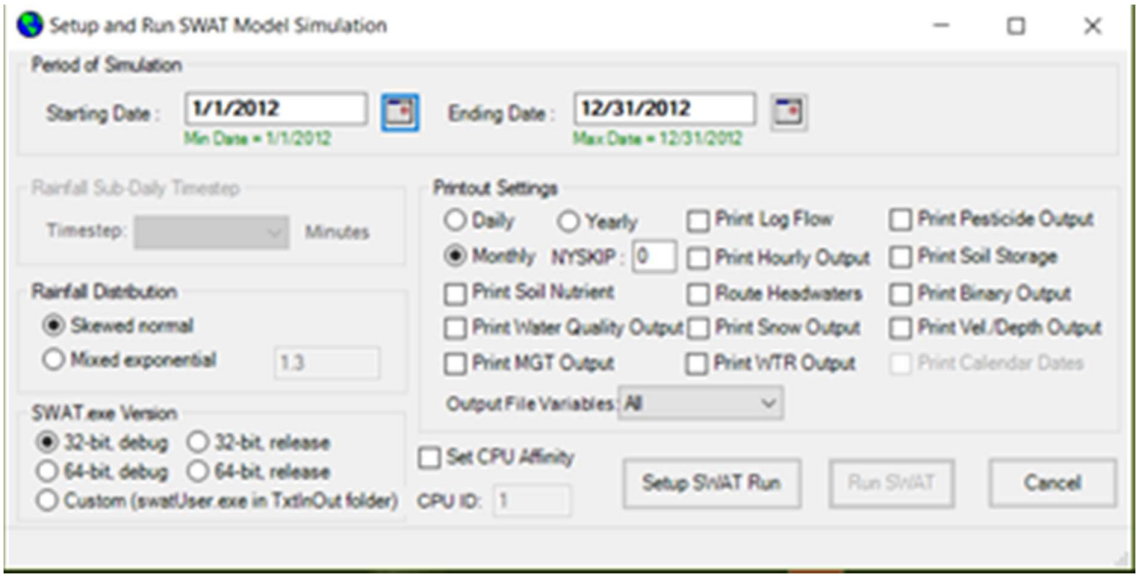
Gambar 3.48 Tampilan menu *Write SWAT Input Tables* sebelum tabel dibuat



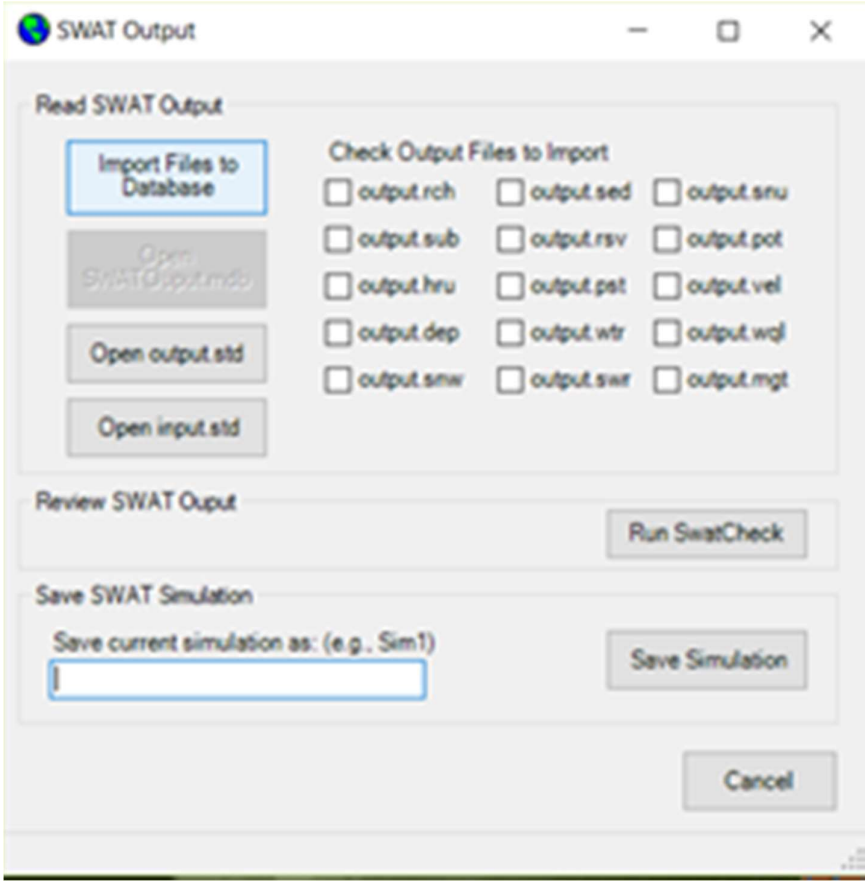
Gambar 3.49 Tampilan menu *Write SWAT Input Tables* sesudah tabel dibuat

9. *Running* SWAT

   Setelah proses dalam memasukkan data yang dibutuhkan untuk pemodelan selesai dan basis data (*database*) telah dibuat, langkah selanjutnya yaitu *Running* model SWAT yang terdapat pada menu *SWAT Simulation* kemudian pilih *Run SWAT*. Langkah pertama yaitu dengan mengisi tanggal simulasi dimulai dan tanggal simulasi selesai. Selanjutnya menentukan *output* simulasi SWAT yang diinginkan bisa dalam bentuk data harian, bulanan, atau tahunan, serta data-data lainnya yang ingin diketahui. Pada penelitian ini penulis menggunakan hasil *output* SWAT dengan waktu harian. Setelah itu pilih *Setup SWAT Run* lalu klik *Run SWAT*. Untuk melihat hasil dari pemodelan SWAT terdapat pada Read SWAT Output kemudian untuk mengetahui hasil data pemodelan yang di inginkan dengan cara pilih dan checklist pada *Check Output Files to Import* kemudian klik *Import Files to Database* maka hasil *output* akan dimasukkan kedalam folder pemodelan SWAT yang telah di tentukan dengan file *Microsoft Access Database*. Pada perintah *Save SWAT Simulation* digunakan untuk menyimpan *output* pemodelan SWAT dalam folder baru.



Gambar 3.50 Tampilan menu *setup and run SWAT simulation*



Gambar 3.51 Tampilan menu *read SWAT output*

Lampiran 3. Karakteristik Tanah Menurut FAO

SNAM	NLAYERS	HYDGRP	SOL_ZMX	TEXTURE	SOL_Z1	CLAY1	SILT1	SAND1	ROCK1
Re82-1bc-4570	2	C	950	SANDY_LOAM	300	11	25	64	0
Jd10-2-3a-4515	2	C	1000	CLAY_LOAM	300	30	39	32	0
I-E-3bc-4509	2	D	200	LOAM	300	26	31	43	0

Lampiran 2. (Lanjutan)

SNAM	SOL_BD1	SOL_AWC1	SOL_K1	SOL_ALB1	SOL_EC1	SOL_Z2	CLAY2	SILT2	SAND2
Re82-1bc-4570	1.4	0.1	22.8	0.0103	0	1000	14	19	68
Jd10-2-3a-4515	1.1	0.175	21.58	0.0005	0	1000	34	32	34

Lampiran 2. (Lanjutan)

SNAM	ROCK2	SOL_BD2	SOL_AWC2	SOL_K2	SOL_ALB2	USLE_K2
Re82-1bc-4570	0	1.3	0.1	34.16	0.1047	0.2703
Jd10-2-3a-4515	0	1.3	0.175	7.22	0.0399	0.256

Keterangan :

SNAM = Nama Jenis Tanah FAO, NLAYERS = Jumlah Lapisan Tanah, HYDGRP = Kelas Hidrologi Tanah, SOL_ZMX = Kedalaman Tanah (mm), TEXTURE = Tekstur Tanah, SOL_Z = Kedalaman Lapisan (mm), CLAY = Lempung (%), SILT = Debu (%), SAND = Pasir (%), ROCK = Kerikil (%), BD = Bulk Density, AWC = Kapasitas Menahan Air (mm H2O/mm tanah), K = Saturated Hydraulic Conductivity (mm/jam), CBN = Karbon Organik (%), ALB = Moist Soil Albedo, USLE_K = Nilai Erodibilitas Tanah menurut USLE (cm-ton cm)

Lampiran 4. Distribusi HRU (*Existing*)

SWAT model simulation Date: 5/18/2019 12:00:00 AM Time: 0 0:00:00
MULTIPLE HRUs LandUse/Soil/Slope OPTION THRESHOLDS : 0 / 0 / 0 [%]
Number of HRUs: 313
Number of Subbasins: 21

	Area [ha]	Area[acres]			
Watershed	6803.9828	16812.9817			
	Area [ha]	Area[acres]	%Wat.Area		
LANDUSE:					
Rice --> RICE	3130.7509	7736.2419	46.01		
Residential --> URBN	3289.0735	8127.465	48.34		
Agricultural Land-Generic --> AGRL	280.6822	693.5798	4.13		
Agricultural Land-Row Crops --> AGRR	29.5883	73.114	0.43		
Range-Brush --> RNGB	19.8127	48.9582	0.29		
Industrial --> UIDU	3.6486	9.0159	0.05		
Range-Grasses --> RNGE	3.4834	8.6077	0.05		
Water --> WATR	46.9433	115.9992	0.69		
SOILS:					
Re82-1bc-4570	6275.4284	15506.8974	92.23		
I-E-3bc-4509	22.0638	54.5208	0.32		
Jd10-2-3a-4515	506.4905	1251.5635	7.44		
SLOPE:					
15-25	350.0542	865.0014	5.14		
0-8	4511.4303	11147.9699	66.31		
8-15	1928.7712	4766.09	28.35		
25-45	13.5619	33.512	0.2		
45-9999	0.1652	0.4083	0		
	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 1	432.3134	1068.268	6.35		
LANDUSE:					
Rice --> RICE	143.4941	354.581	2.11	33.19	
Residential --> URBN	128.8239	318.3302	1.89	29.8	
Agricultural Land-Generic --> AGRL	147.1289	363.5629	2.16	34.03	
Agricultural Land-Row Crops --> AGRR	10.9321	27.0138	0.16	2.53	
Range-Brush --> RNGB	1.9345	4.7801	0.03	0.45	
SOILS:					
Re82-1bc-4570	432.3134	1068.268	6.35	100	
SLOPE:					
15-25	30.0013	74.1347	0.44	6.94	
0-8	245.4558	606.5336	3.61	56.78	
8-15	156.4914	386.6981	2.3	36.2	
25-45	0.3649	0.9016	0.01	0.08	
HRUs					
1 Rice --> RICE/Re82-1bc-4570/15-25	6.9461	17.1643	0.1	1.61	1
2 Rice --> RICE/Re82-1bc-4570/0-8	89.0401	220.0226	1.31	20.6	2
3 Rice --> RICE/Re82-1bc-4570/8-15	47.3701	117.0539	0.7	10.96	3
4 Rice --> RICE/Re82-1bc-4570/25-45	0.1377	0.3402	0	0.03	4
5 Residential --> URBN/Re82-1bc-4570/25-45	0.1721	0.4253	0	0.04	5
6 Residential --> URBN/Re82-1bc-4570/0-8	65.5995	162.0995	0.96	15.17	6

7 Residential --> URBN/Re82-1bc-4570/15-25	13.5963	33.5971	0.2	3.15	7
8 Residential --> URBN/Re82-1bc-4570/8-15	49.456	122.2083	0.73	11.44	8
9 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/25-45	0.0207	0.051	0	0	9
10 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	82.2179	203.1645	1.21	19.02	10
11 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	55.9065	138.1478	0.82	12.93	11
12 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	8.9839	22.1996	0.13	2.08	12
13 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	7.4212	18.3381	0.11	1.72	13
14 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/25-45	0.0344	0.0851	0	0.01	14
15 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	3.0153	7.4509	0.04	0.7	15
16 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.4612	1.1397	0.01	0.11	16
17 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.7435	1.8372	0.01	0.17	17
18 Range-Brush --> RNGB/Re82-1bc-4570/15-25	0.0138	0.034	0	0	18
19 Range-Brush --> RNGB/Re82-1bc-4570/0-8	1.1772	2.9089	0.02	0.27	19

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	2	316.1014	781.1023	4.65		
LANDUSE:						
Rice --> RICE		212.0744	524.0464	3.12	67.09	
Residential --> URBN		49.5937	122.5485	0.73	15.69	
Agricultural Land-Generic --> AGRL		53.2699	131.6325	0.78	16.85	
Range-Brush --> RNGB		0.062	0.1531	0	0.02	
Industrial --> UIDU		1.1015	2.7218	0.02	0.35	
SOILS:						
Re82-1bc-4570		316.1014	781.1023	4.65	100	
SLOPE:						
8-15		99.8827	246.8152	1.47	31.6	
15-25		14.3467	35.4513	0.21	4.54	
0-8		201.8238	498.7167	2.97	63.85	
25-45		0.0482	0.1191	0	0.02	
HRUs						
20 Rice --> RICE/Re82-1bc-4570/8-15		61.641	152.3181	0.91	19.5	1
21 Rice --> RICE/Re82-1bc-4570/15-25		6.8567	16.9431	0.1	2.17	2
22 Rice --> RICE/Re82-1bc-4570/0-8		143.5629	354.7511	2.11	45.42	3
23 Rice --> RICE/Re82-1bc-4570/25-45		0.0138	0.034	0	0	4
24 Residential --> URBN/Re82-1bc-4570/0-8		24.6936	61.0191	0.36	7.81	5
25 Residential --> URBN/Re82-1bc-4570/8-15		19.3652	47.8524	0.28	6.13	6
26 Residential --> URBN/Re82-1bc-4570/15-25		5.5005	13.5919	0.08	1.74	7
27 Residential --> URBN/Re82-1bc-4570/25-45		0.0344	0.0851	0	0.01	8
28 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		32.5691	80.4799	0.48	10.3	9
29 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25		1.9758	4.8822	0.03	0.63	10
30 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		18.725	46.2704	0.28	5.92	11
31 Range-Brush --> RNGB/Re82-1bc-4570/8-15		0.0344	0.0851	0	0.01	12
32 Range-Brush --> RNGB/Re82-1bc-4570/0-8		0.0275	0.068	0	0.01	13
33 Industrial --> UIDU/Re82-1bc-4570/15-25		0.0138	0.034	0	0	14
34 Industrial --> UIDU/Re82-1bc-4570/0-8		0.9707	2.3986	0.01	0.31	15
35 Industrial --> UIDU/Re82-1bc-4570/8-15		0.117	0.2892	0	0.04	16

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	3	726.6539	1795.598	10.68		
LANDUSE:						
Rice --> RICE		386.5748	955.2457	5.68	53.2	
Residential --> URBN		310.2636	766.6768	4.56	42.7	
Agricultural Land-Generic --> AGRL		23.8468	58.9267	0.35	3.28	
Agricultural Land-Row Crops --> AGRR		4.757	11.7547	0.07	0.65	
Range-Brush --> RNGB		0.6953	1.7181	0.01	0.1	
Industrial --> UIDU		0.5163	1.2758	0.01	0.07	

SOILS:					
Re82-1bc-4570	726.6538	1795.598	10.68	100	
SLOPE:					
15-25	22.9519	56.7153	0.34	3.16	
8-15	194.1961	479.8683	2.85	26.72	
0-8	509.375	1258.6912	7.49	70.1	
25-45	0.1308	0.3232	0	0.02	
HRUs					
36 Rice --> RICE/Re82-1bc-4570/15-25	10.1335	25.0405	0.15	1.39	1
37 Rice --> RICE/Re82-1bc-4570/8-15	99.3526	245.5053	1.46	13.67	2
38 Rice --> RICE/Re82-1bc-4570/0-8	277.0198	684.5298	4.07	38.12	3
39 Rice --> RICE/Re82-1bc-4570/25-45	0.0688	0.1701	0	0.01	4
40 Residential --> URBN/Re82-1bc-4570/15-25	11.414	28.2045	0.17	1.57	5
41 Residential --> URBN/Re82-1bc-4570/8-15	85.8183	212.0614	1.26	11.81	6
42 Residential --> URBN/Re82-1bc-4570/25-45	0.062	0.1531	0	0.01	7
43 Residential --> URBN/Re82-1bc-4570/0-8	212.9693	526.2578	3.13	29.31	8
44 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	1.246	3.079	0.02	0.17	9
45 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	7.7034	19.0355	0.11	1.06	10
46 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	14.8974	36.8122	0.22	2.05	11
47 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.1583	0.3913	0	0.02	12
48 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.9638	2.3816	0.01	0.13	13
49 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	3.6349	8.9819	0.05	0.5	14
50 Range-Brush --> RNGB/Re82-1bc-4570/0-8	0.4681	1.1568	0.01	0.06	15
51 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.2272	0.5614	0	0.03	16
52 Industrial --> UIDU/Re82-1bc-4570/8-15	0.1308	0.3232	0	0.02	17
53 Industrial --> UIDU/Re82-1bc-4570/0-8	0.3855	0.9526	0.01	0.05	18

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	4	621.2362	1535.1058	9.13		
LANDUSE:						
Rice --> RICE		218.6212	540.224	3.21	35.19	1
Residential --> URBN		383.8074	948.4072	5.64	61.78	2
Agricultural Land-Generic --> AGRL		11.71	28.936	0.17	1.88	3
Agricultural Land-Row Crops --> AGRR		5.2802	13.0476	0.08	0.85	4
Range-Grasses --> RNGE		1.012	2.5006	0.01	0.16	5
Range-Brush --> RNGB		0.8055	1.9903	0.01	0.13	6
SOILS:						
Re82-1bc-4570		621.2362	1535.1058	9.13	100	
SLOPE:						
8-15		143.6799	355.0403	2.11	23.13	
25-45		0.0757	0.1871	0	0.01	
0-8		466.2456	1152.1161	6.85	75.05	
15-25		11.235	27.7622	0.17	1.81	
HRUs						
54 Rice --> RICE/Re82-1bc-4570/8-15		45.6697	112.8522	0.67	7.35	1
55 Rice --> RICE/Re82-1bc-4570/25-45		0.0138	0.034	0	0	2
56 Rice --> RICE/Re82-1bc-4570/0-8		169.8881	419.8019	2.5	27.35	3
57 Rice --> RICE/Re82-1bc-4570/15-25		3.0497	7.536	0.04	0.49	4
58 Residential --> URBN/Re82-1bc-4570/25-45		0.062	0.1531	0	0.01	5
59 Residential --> URBN/Re82-1bc-4570/8-15		92.1862	227.7967	1.35	14.84	6
60 Residential --> URBN/Re82-1bc-4570/15-25		7.2697	17.9638	0.11	1.17	7

61 Residential --> URBN/Re82-1bc-4570/0-8	284.2895	702.4936	4.18	45.76	8
62 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.4888	1.2078	0.01	0.08	9
63 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	7.3317	18.1169	0.11	1.18	10
64 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	3.8896	9.6113	0.06	0.63	11
65 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.296	0.7315	0	0.05	12
66 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	1.246	3.079	0.02	0.2	13
67 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	3.7381	9.2371	0.05	0.6	14
68 Range-Grasses --> RNGE/Re82-1bc-4570/0-8	0.654	1.6161	0.01	0.11	15
69 Range-Grasses --> RNGE/Re82-1bc-4570/8-15	0.3442	0.8506	0.01	0.06	16
70 Range-Grasses --> RNGE/Re82-1bc-4570/15-25	0.0138	0.034	0	0	17
71 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.3442	0.8506	0.01	0.06	18
72 Range-Brush --> RNGB/Re82-1bc-4570/15-25	0.117	0.2892	0	0.02	19
73 Range-Brush --> RNGB/Re82-1bc-4570/0-8	0.3442	0.8506	0.01	0.06	20

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 5	206.092	509.2637	3.03		
LANDUSE:					
Rice --> RICE	99.2425	245.2332	1.46	48.15	
Residential --> URBN	83.2161	205.6311	1.22	40.38	
Agricultural Land-Generic --> AGRL	4.5918	11.3465	0.07	2.23	
Agricultural Land-Row Crops --> AGRR	3.2218	7.9612	0.05	1.56	
Range-Brush --> RNGB	14.7184	36.3699	0.22	7.14	
Industrial --> UIDU	1.1015	2.7218	0.02	0.53	
SOILS:					
Re82-1bc-4570	206.092	509.2637	3.03	100	
SLOPE:					
25-45	0.1515	0.3742	0	0.07	
8-15	55.0804	136.1064	0.81	26.73	
0-8	141.8143	350.4303	2.08	68.81	
15-25	9.0458	22.3527	0.13	4.39	
HRUs					
74 Rice --> RICE/Re82-1bc-4570/25-45	0.0344	0.0851	0	0.02	1
75 Rice --> RICE/Re82-1bc-4570/8-15	23.0896	57.0555	0.34	11.2	2
76 Rice --> RICE/Re82-1bc-4570/0-8	72.6833	179.604	1.07	35.27	3
77 Rice --> RICE/Re82-1bc-4570/15-25	3.4352	8.4886	0.05	1.67	4
78 Residential --> URBN/Re82-1bc-4570/25-45	0.0275	0.068	0	0.01	5
79 Residential --> URBN/Re82-1bc-4570/0-8	55.7688	137.8076	0.82	27.06	6
80 Residential --> URBN/Re82-1bc-4570/8-15	23.7642	58.7226	0.35	11.53	7
81 Residential --> URBN/Re82-1bc-4570/15-25	3.6555	9.0329	0.05	1.77	8
82 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	1.6178	3.9976	0.02	0.78	9
83 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	2.7606	6.8215	0.04	1.34	10
84 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.2134	0.5273	0	0.1	11
85 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.0069	0.017	0	0	12
86 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	2.499	6.1751	0.04	1.21	13
87 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.716	1.7692	0.01	0.35	14
88 Range-Brush --> RNGB/Re82-1bc-4570/25-45	0.0757	0.1871	0	0.04	15
89 Range-Brush --> RNGB/Re82-1bc-4570/0-8	7.8273	19.3417	0.12	3.8	16
90 Range-Brush --> RNGB/Re82-1bc-4570/15-25	1.3837	3.4192	0.02	0.67	17
91 Range-Brush --> RNGB/Re82-1bc-4570/8-15	5.4316	13.4218	0.08	2.64	18
92 Industrial --> UIDU/Re82-1bc-4570/15-25	0.3511	0.8676	0.01	0.17	19
93 Industrial --> UIDU/Re82-1bc-4570/0-8	0.2754	0.6804	0	0.13	20
94 Industrial --> UIDU/Re82-1bc-4570/25-45	0.0138	0.034	0	0.01	21
95 Industrial --> UIDU/Re82-1bc-4570/8-15	0.4612	1.1397	0.01	0.22	22

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	6	3.3733	8.3355	0.05		
LANDUSE:						
Residential --> URBN		3.3733	8.3355	0.05	100	
SOILS:						
Re82-1bc-4570		3.3733	8.3355	0.05	100	
SLOPE:						
15-25		0.0207	0.051	0	0.61	
8-15		0.9225	2.2795	0.01	27.35	
0-8		2.4301	6.0049	0.04	72.04	
HRUs						
96 Residential --> URBN/Re82-1bc-4570/15-25		0.0207	0.051	0	0.61	1
97 Residential --> URBN/Re82-1bc-4570/8-15		0.9225	2.2795	0.01	27.35	2
98 Residential --> URBN/Re82-1bc-4570/0-8		2.4301	6.0049	0.04	72.04	3

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	7	180.8477	446.8837	2.66		
LANDUSE:						
Rice --> RICE		118.4632	292.7284	1.74	65.5	
Residential --> URBN		52.313	129.2679	0.77	28.93	
Agricultural Land-Generic --> AGRL		4.5986	11.3635	0.07	2.54	
Agricultural Land-Row Crops --> AGRR		0.2478	0.6124	0	0.14	
Water --> WATR		4.2957	10.615	0.06	2.38	
Industrial --> UIDU		0.9294	2.2965	0.01	0.51	
SOILS:						
Re82-1bc-4570		180.8477	446.8837	2.66	100	
SLOPE:						
0-8		142.3857	351.8422	2.09	78.73	
8-15		35.9492	88.8324	0.53	19.88	
15-25		2.5127	6.2091	0.04	1.39	
HRUs						
99 Rice --> RICE/Re82-1bc-4570/0-8		97.7762	241.6098	1.44	54.07	1
100 Rice --> RICE/Re82-1bc-4570/8-15		19.3033	47.6993	0.28	10.67	2
101 Rice --> RICE/Re82-1bc-4570/15-25		1.3837	3.4192	0.02	0.77	3
102 Residential --> URBN/Re82-1bc-4570/15-25		0.9225	2.2795	0.01	0.51	4
103 Residential --> URBN/Re82-1bc-4570/0-8		37.9938	93.8847	0.56	21.01	5
104 Residential --> URBN/Re82-1bc-4570/8-15		13.3966	33.1038	0.2	7.41	6
105 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25		0.0826	0.2041	0	0.05	7
106 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		1.7417	4.3038	0.03	0.96	8
107 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		2.7743	6.8555	0.04	1.53	9
108 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15		0.0757	0.1871	0	0.04	10
109 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25		0.0207	0.051	0	0.01	11
110 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8		0.1515	0.3742	0	0.08	12

111 Water --> WATR/Re82-1bc-4570/15-25	0.1033	0.2552	0	0.06	13
112 Water --> WATR/Re82-1bc-4570/0-8	3.029	7.4849	0.04	1.67	14
113 Water --> WATR/Re82-1bc-4570/8-15	1.1634	2.8749	0.02	0.64	15
114 Industrial --> UIDU/Re82-1bc-4570/0-8	0.6609	1.6331	0.01	0.37	16
115 Industrial --> UIDU/Re82-1bc-4570/8-15	0.2685	0.6634	0	0.15	17

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	8	191.4218	473.0128	2.81		
LANDUSE:						
Rice --> RICE		53.9789	133.3847	0.79	28.2	
Residential --> URBN		129.705	320.5076	1.91	67.76	
Agricultural Land-Generic --> AGRL		6.9255	17.1132	0.1	3.62	
Water --> WATR		0.8123	2.0073	0.01	0.42	
SOILS:						
Re82-1bc-4570		191.4218	473.0128	2.81	100	
SLOPE:						
15-25		5.3284	13.1667	0.08	2.78	
0-8		140.9469	348.2869	2.07	73.63	
8-15		44.9056	110.9639	0.66	23.46	
25-45		0.2409	0.5954	0	0.13	
HRUs						
116 Rice --> RICE/Re82-1bc-4570/15-25		0.2547	0.6294	0	0.13	1
117 Rice --> RICE/Re82-1bc-4570/0-8		45.9657	113.5836	0.68	24.01	2
118 Rice --> RICE/Re82-1bc-4570/8-15		7.7585	19.1716	0.11	4.05	3
119 Residential --> URBN/Re82-1bc-4570/15-25		4.7294	11.6867	0.07	2.47	4
120 Residential --> URBN/Re82-1bc-4570/8-15		34.5655	85.4131	0.51	18.06	5
121 Residential --> URBN/Re82-1bc-4570/0-8		90.1691	222.8124	1.33	47.1	6
122 Residential --> URBN/Re82-1bc-4570/25-45		0.2409	0.5954	0	0.13	7
123 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25		0.3304	0.8165	0	0.17	8
124 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		4.1649	10.2918	0.06	2.18	9
125 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		2.4301	6.0049	0.04	1.27	10
126 Water --> WATR/Re82-1bc-4570/0-8		0.6471	1.5991	0.01	0.34	11
127 Water --> WATR/Re82-1bc-4570/8-15		0.1515	0.3742	0	0.08	12
128 Water --> WATR/Re82-1bc-4570/15-25		0.0138	0.034	0	0.01	13

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	9	731.6724	1807.9991	10.75	
LANDUSE:					
Rice --> RICE		37.4018	92.4217	0.55	5.11
Residential --> URBN		663.7117	1640.0648	9.75	90.71
Agricultural Land-Generic --> AGRL		9.0045	22.2506	0.13	1.23
Range-Grasses --> RNGE		0.4268	1.0547	0.01	0.06
Range-Brush --> RNGB		1.5971	3.9466	0.02	0.22
Water --> WATR		19.5304	48.2607	0.29	2.67

SOILS:					
Re82-1bc-4570	731.6724	1807.9991	10.75	100	
SLOPE:					
15-25	31.9839	79.0339	0.47	4.37	
8-15	176.5244	436.2007	2.59	24.13	
0-8	521.9043	1289.6515	7.67	71.33	
25-45	1.2598	3.113	0.02	0.17	
HRUs					
129 Rice --> RICE/Re82-1bc-4570/15-25	0.6884	1.7011	0.01	0.09	1
130 Rice --> RICE/Re82-1bc-4570/8-15	8.3574	20.6516	0.12	1.14	2
131 Rice --> RICE/Re82-1bc-4570/0-8	28.356	70.069	0.42	3.88	3
132 Residential --> URBN/Re82-1bc-4570/8-15	157.648	389.556	2.32	21.55	4
133 Residential --> URBN/Re82-1bc-4570/0-8	477.5701	1180.0995	7.02	65.27	5
134 Residential --> URBN/Re82-1bc-4570/15-25	27.3647	67.6194	0.4	3.74	6
135 Residential --> URBN/Re82-1bc-4570/25-45	1.129	2.7898	0.02	0.15	7
136 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	2.9327	7.2468	0.04	0.4	8
137 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.6678	1.6501	0.01	0.09	9
138 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	5.4041	13.3538	0.08	0.74	10
139 Range-Grasses --> RNGE/Re82-1bc-4570/8-15	0.296	0.7315	0	0.04	11
140 Range-Grasses --> RNGE/Re82-1bc-4570/0-8	0.0757	0.1871	0	0.01	12
141 Range-Grasses --> RNGE/Re82-1bc-4570/15-25	0.0551	0.1361	0	0.01	13
142 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.358	0.8846	0.01	0.05	14
143 Range-Brush --> RNGB/Re82-1bc-4570/0-8	1.2392	3.062	0.02	0.17	15
144 Water --> WATR/Re82-1bc-4570/15-25	3.208	7.9272	0.05	0.44	16
145 Water --> WATR/Re82-1bc-4570/25-45	0.1308	0.3232	0	0.02	17
146 Water --> WATR/Re82-1bc-4570/8-15	6.9324	17.1303	0.1	0.95	18
147 Water --> WATR/Re82-1bc-4570/0-8	9.2592	22.88	0.14	1.27	19

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	10	267.8707	661.922	3.94		
LANDUSE:						
Rice --> RICE		40.2243	99.3963	0.59	15.02	
Residential --> URBN		225.5467	557.3373	3.31	84.2	
Agricultural Land-Generic --> AGRL		0.0551	0.1361	0	0.02	
Range-Grasses --> RNGE		2.0446	5.0523	0.03	0.76	
SOILS:						
Re82-1bc-4570		267.8707	661.922	3.94	100	
SLOPE:						
15-25		2.2374	5.5286	0.03	0.84	
8-15		43.8041	108.2421	0.64	16.35	
0-8		221.8293	548.1512	3.26	82.81	
HRUs						
148 Rice --> RICE/Re82-1bc-4570/15-25		0.3717	0.9186	0.01	0.14	1
149 Rice --> RICE/Re82-1bc-4570/8-15		6.7534	16.688	0.1	2.52	2
150 Rice --> RICE/Re82-1bc-4570/0-8		33.0992	81.7897	0.49	12.36	3

151 Residential --> URBN/Re82-1bc-4570/15-25	1.8587	4.593	0.03	0.69	4
152 Residential --> URBN/Re82-1bc-4570/8-15	36.679	90.6356	0.54	13.69	5
153 Residential --> URBN/Re82-1bc-4570/0-8	187.009	462.1087	2.75	69.81	6
154 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	0.0138	0.034	0	0.01	7
155 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	0.0413	0.1021	0	0.02	8
156 Range-Grasses --> RNGE/Re82-1bc-4570/15-25	0.0069	0.017	0	0	9
157 Range-Grasses --> RNGE/Re82-1bc-4570/8-15	0.358	0.8846	0.01	0.13	10
158 Range-Grasses --> RNGE/Re82-1bc-4570/0-8	1.6797	4.1507	0.02	0.63	11

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	11	187.0021	462.0917	2.75		
LANDUSE:						
Rice --> RICE		82.6309	204.1852	1.21	44.19	
Residential --> URBN		104.3712	257.9065	1.53	55.81	
SOILS:						
Re82-1bc-4570		187.0022	462.0917	2.75	100	
SLOPE:						
15-25		13.493	33.3419	0.2	7.22	
0-8		114.0022	281.7051	1.68	60.96	
8-15		59.025	145.8538	0.87	31.56	
25-45		0.4819	1.1908	0.01	0.26	
HRUs						
159 Rice --> RICE/Re82-1bc-4570/15-25		6.8291	16.8751	0.1	3.65	1
160 Rice --> RICE/Re82-1bc-4570/0-8		50.3579	124.4368	0.74	26.93	2
161 Rice --> RICE/Re82-1bc-4570/8-15		25.2168	62.3119	0.37	13.48	3
162 Rice --> RICE/Re82-1bc-4570/25-45		0.2272	0.5614	0	0.12	4
163 Residential --> URBN/Re82-1bc-4570/0-8		63.6443	157.2683	0.94	34.03	5
164 Residential --> URBN/Re82-1bc-4570/8-15		33.8083	83.5419	0.5	18.08	6
165 Residential --> URBN/Re82-1bc-4570/15-25		6.6639	16.4668	0.1	3.56	7
166 Residential --> URBN/Re82-1bc-4570/25-45		0.2547	0.6294	0	0.14	8

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	12	162.522	401.5999	2.39	
LANDUSE:					
Rice --> RICE		82.7824	204.5594	1.22	50.94
Residential --> URBN		79.7396	197.0405	1.17	49.06
SOILS:					
Re82-1bc-4570		162.522	401.5999	2.39	100
SLOPE:					
15-25		15.5514	38.4283	0.23	9.57
25-45		0.9225	2.2795	0.01	0.57
0-8		85.3227	210.8366	1.25	52.5
8-15		60.7254	150.0556	0.89	37.36

HRUs					
167 Rice --> RICE/Re82-1bc-4570/15-25	9.9064	24.4791	0.15	6.1	1
168 Rice --> RICE/Re82-1bc-4570/25-45	0.833	2.0584	0.01	0.51	2
169 Rice --> RICE/Re82-1bc-4570/0-8	42.1381	104.1254	0.62	25.93	3
170 Rice --> RICE/Re82-1bc-4570/8-15	29.9049	73.8966	0.44	18.4	4
171 Residential --> URBN/Re82-1bc-4570/0-8	43.1845	106.7111	0.63	26.57	5
172 Residential --> URBN/Re82-1bc-4570/25-45	0.0895	0.2211	0	0.06	6
173 Residential --> URBN/Re82-1bc-4570/15-25	5.645	13.9492	0.08	3.47	7
174 Residential --> URBN/Re82-1bc-4570/8-15	30.8205	76.159	0.45	18.96	8

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	13	714.8337	1766.3898	10.51		
LANDUSE:						
Rice --> RICE		360.828	891.6239	5.3	50.48	
Residential --> URBN		340.6642	841.7982	5.01	47.66	
Agricultural Land-Generic --> AGRL		10.7806	26.6395	0.16	1.51	
Water --> WATR		2.5609	6.3282	0.04	0.36	
SOILS:						
Re82-1bc-4570		714.8337	1766.3898	10.51	100	
SLOPE:						
15-25		19.2757	47.6313	0.28	2.7	
0-8		520.4241	1285.9941	7.65	72.8	
8-15		174.9961	432.4242	2.57	24.48	
25-45		0.1377	0.3402	0	0.02	
HRUs						
175 Rice --> RICE/Re82-1bc-4570/15-25		10.7393	26.5374	0.16	1.5	1
176 Rice --> RICE/Re82-1bc-4570/0-8		266.1635	657.7032	3.91	37.23	2
177 Rice --> RICE/Re82-1bc-4570/8-15		83.7875	207.0431	1.23	11.72	3
178 Rice --> RICE/Re82-1bc-4570/25-45		0.1377	0.3402	0	0.02	4
179 Residential --> URBN/Re82-1bc-4570/8-15		85.5774	211.466	1.26	11.97	5
180 Residential --> URBN/Re82-1bc-4570/15-25		7.6965	19.0185	0.11	1.08	6
181 Residential --> URBN/Re82-1bc-4570/0-8		247.3903	611.3137	3.64	34.61	7
182 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		4.8534	11.9929	0.07	0.68	8
183 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25		0.833	2.0584	0.01	0.12	9
184 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		5.0943	12.5883	0.07	0.71	10
185 Water --> WATR/Re82-1bc-4570/15-25		0.0069	0.017	0	0	11
186 Water --> WATR/Re82-1bc-4570/8-15		0.7779	1.9223	0.01	0.11	12
187 Water --> WATR/Re82-1bc-4570/0-8		1.7761	4.3889	0.03	0.25	13

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	14	442.8462	1094.2951	6.51	
LANDUSE:					
Rice --> RICE		323.2472	798.7599	4.75	72.99
Residential --> URBN		114.0986	281.9433	1.68	25.76
Agricultural Land-Generic --> AGRL		2.7055	6.6854	0.04	0.61
Agricultural Land-Row Crops --> AGRR		2.7812	6.8725	0.04	0.63
Water --> WATR		0.0138	0.034	0	0

SOILS:					
Re82-1bc-4570	442.8462	1094.2951	6.51	100	
SLOPE:					
25-45	0.0138	0.034	0	0	
15-25	9.2592	22.88	0.14	2.09	
0-8	336.4304	831.3363	4.94	75.97	
8-15	97.1428	240.0447	1.43	21.94	
HRUs					
188 Rice --> RICE/Re82-1bc-4570/25-45	0.0069	0.017	0	0	1
189 Rice --> RICE/Re82-1bc-4570/15-25	6.8567	16.9431	0.1	1.55	2
190 Rice --> RICE/Re82-1bc-4570/0-8	250.2059	618.2713	3.68	56.5	3
191 Rice --> RICE/Re82-1bc-4570/8-15	66.1777	163.5285	0.97	14.94	4
192 Residential --> URBN/Re82-1bc-4570/0-8	82.6516	204.2362	1.21	18.66	5
193 Residential --> URBN/Re82-1bc-4570/25-45	0.0069	0.017	0	0	6
194 Residential --> URBN/Re82-1bc-4570/15-25	2.2442	5.5456	0.03	0.51	7
195 Residential --> URBN/Re82-1bc-4570/8-15	29.1959	72.1444	0.43	6.59	8
196 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	1.1703	2.8919	0.02	0.26	9
197 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	1.3837	3.4192	0.02	0.31	10
198 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.1515	0.3742	0	0.03	11
199 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.0069	0.017	0	0	12
200 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.5989	1.48	0.01	0.14	13
201 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	2.1754	5.3755	0.03	0.49	14
202 Water --> WATR/Re82-1bc-4570/0-8	0.0138	0.034	0	0	15

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	15	206.8768	511.2029	3.04		
LANDUSE:						
Rice --> RICE		117.8092	291.1123	1.73	56.95	
Residential --> URBN		89.0539	220.0566	1.31	43.05	
Water --> WATR		0.0138	0.034	0	0.01	
SOILS:						
Re82-1bc-4570		206.8768	511.2029	3.04	100	
SLOPE:						
25-45		0.9776	2.4156	0.01	0.47	
15-25		17.6579	43.6337	0.26	8.54	
0-8		119.0483	294.1743	1.75	57.55	
8-15		69.193	170.9794	1.02	33.45	
HRUs						
203 Rice --> RICE/Re82-1bc-4570/25-45		0.7573	1.8712	0.01	0.37	1
204 Rice --> RICE/Re82-1bc-4570/15-25		10.3401	25.5508	0.15	5	2
205 Rice --> RICE/Re82-1bc-4570/0-8		68.6285	169.5844	1.01	33.17	3
206 Rice --> RICE/Re82-1bc-4570/8-15		38.0833	94.1058	0.56	18.41	4

207 Residential --> URBN/Re82-1bc-4570/25-45	0.2203	0.5444	0	0.11	5
208 Residential --> URBN/Re82-1bc-4570/8-15	31.0959	76.8395	0.46	15.03	6
209 Residential --> URBN/Re82-1bc-4570/0-8	50.4198	124.5899	0.74	24.37	7
210 Residential --> URBN/Re82-1bc-4570/15-25	7.3179	18.0829	0.11	3.54	8
211 Water --> WATR/Re82-1bc-4570/8-15	0.0138	0.034	0	0.01	9

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	16	189.7834	468.9642	2.79		
LANDUSE:						
Rice --> RICE		116.7283	288.4416	1.72	61.51	
Residential --> URBN		69.3445	171.3536	1.02	36.54	
Agricultural Land-Generic --> AGRL		0.1515	0.3742	0	0.08	
Water --> WATR		3.5591	8.7948	0.05	1.88	
SOILS:						
Re82-1bc-4570		189.7834	468.9642	2.79	100	
SLOPE:						
25-45		0.7091	1.7522	0.01	0.37	
15-25		17.6924	43.7187	0.26	9.32	
0-8		102.8636	254.181	1.51	54.2	
8-15		68.5183	169.3123	1.01	36.1	
HRUs						
212 Rice --> RICE/Re82-1bc-4570/25-45		0.4888	1.2078	0.01	0.26	1
213 Rice --> RICE/Re82-1bc-4570/15-25		11.0422	27.2859	0.16	5.82	2
214 Rice --> RICE/Re82-1bc-4570/0-8		63.369	156.5879	0.93	33.39	3
215 Rice --> RICE/Re82-1bc-4570/8-15		41.8283	103.3599	0.61	22.04	4
216 Residential --> URBN/Re82-1bc-4570/8-15		25.4027	62.7713	0.37	13.39	5
217 Residential --> URBN/Re82-1bc-4570/0-8		37.5464	92.779	0.55	19.78	6
218 Residential --> URBN/Re82-1bc-4570/15-25		6.182	15.276	0.09	3.26	7
219 Residential --> URBN/Re82-1bc-4570/25-45		0.2134	0.5273	0	0.11	8
220 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		0.0895	0.2211	0	0.05	9
221 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		0.062	0.1531	0	0.03	10
222 Water --> WATR/Re82-1bc-4570/25-45		0.0069	0.017	0	0	11
223 Water --> WATR/Re82-1bc-4570/15-25		0.4681	1.1568	0.01	0.25	12
224 Water --> WATR/Re82-1bc-4570/8-15		1.2254	3.028	0.02	0.65	13
225 Water --> WATR/Re82-1bc-4570/0-8		1.8587	4.593	0.03	0.98	14

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	17	409.4166	1011.6888	6.02	
LANDUSE:					
Rice --> RICE		288.957	714.0272	4.25	70.58
Residential --> URBN		120.4389	297.6106	1.77	29.42
Water --> WATR		0.0207	0.051	0	0.01

SOILS:					
Re82-1bc-4570	409.4166	1011.6888	6.02	100	
SLOPE:					
0-8	222.4075	549.5802	3.27	54.32	
8-15	143.8176	355.3805	2.11	35.13	
25-45	3.1254	7.7231	0.05	0.76	
15-25	40.066	99.0051	0.59	9.79	
HRUs					
226 Rice --> RICE/Re82-1bc-4570/0-8	159.8303	394.9485	2.35	39.04	1
227 Rice --> RICE/Re82-1bc-4570/8-15	98.2236	242.7155	1.44	23.99	2
228 Rice --> RICE/Re82-1bc-4570/25-45	2.4783	6.124	0.04	0.61	3
229 Rice --> RICE/Re82-1bc-4570/15-25	28.4248	70.2392	0.42	6.94	4
230 Residential --> URBN/Re82-1bc-4570/15-25	11.6412	28.7659	0.17	2.84	5
231 Residential --> URBN/Re82-1bc-4570/8-15	45.5871	112.648	0.67	11.13	6
232 Residential --> URBN/Re82-1bc-4570/25-45	0.6471	1.5991	0.01	0.16	7
233 Residential --> URBN/Re82-1bc-4570/0-8	62.5635	154.5976	0.92	15.28	8
234 Water --> WATR/Re82-1bc-4570/0-8	0.0138	0.034	0	0	9
235 Water --> WATR/Re82-1bc-4570/8-15	0.0069	0.017	0	0	10

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	18	0.9638	2.3816	0.01		
LANDUSE:						
Rice --> RICE		0.7022	1.7351	0.01	72.86	
Residential --> URBN		0.0138	0.034	0	1.43	
Water --> WATR		0.2478	0.6124	0	25.71	
SOILS:						
Re82-1bc-4570		0.9638	2.3816	0.01	100	
SLOPE:						
0-8		0.7228	1.7862	0.01	75	
8-15		0.2409	0.5954	0	25	
HRUs						
236 Rice --> RICE/Re82-1bc-4570/0-8		0.5507	1.3609	0.01	57.14	1
237 Rice --> RICE/Re82-1bc-4570/8-15		0.1515	0.3742	0	15.71	2
238 Residential --> URBN/Re82-1bc-4570/0-8		0.0138	0.034	0	1.43	3
239 Water --> WATR/Re82-1bc-4570/8-15		0.0895	0.2211	0	9.29	4
240 Water --> WATR/Re82-1bc-4570/0-8		0.1583	0.3913	0	16.43	5

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	19	337.6971	834.4663	4.96		
LANDUSE:						
Rice --> RICE		195.4491	482.9644	2.87	57.88	
Residential --> URBN		137.9454	340.87	2.03	40.85	
Agricultural Land-Generic --> AGRL		4.282	10.581	0.06	1.27	
Water --> WATR		0.0207	0.051	0	0.01	
SOILS:						
I-E-3bc-4509		22.0638	54.5208	0.32	6.53	
Jd10-2-3a-4515		256.0575	632.7308	3.76	75.82	
Re82-1bc-4570		59.5758	147.2147	0.88	17.64	
SLOPE:						
0-8		160.498	396.5986	2.36	47.53	
15-25		46.6404	115.2507	0.69	13.81	
25-45		2.2993	5.6817	0.03	0.68	
8-15		128.2594	316.9353	1.89	37.98	
HRUs						
241 Rice --> RICE/I-E-3bc-4509/0-8		4.5849	11.3294	0.07	1.36	1
242 Rice --> RICE/I-E-3bc-4509/15-25		2.0584	5.0863	0.03	0.61	2
243 Rice --> RICE/I-E-3bc-4509/25-45		0.0757	0.1871	0	0.02	3
244 Rice --> RICE/I-E-3bc-4509/8-15		4.1236	10.1897	0.06	1.22	4
245 Rice --> RICE/Jd10-2-3a-4515/8-15		57.2558	141.482	0.84	16.95	5
246 Rice --> RICE/Jd10-2-3a-4515/15-25		21.9124	54.1466	0.32	6.49	6
247 Rice --> RICE/Jd10-2-3a-4515/25-45		1.4113	3.4873	0.02	0.42	7
248 Rice --> RICE/Jd10-2-3a-4515/0-8		72.5663	179.3148	1.07	21.49	8
249 Rice --> RICE/Re82-1bc-4570/25-45		0.0482	0.1191	0	0.01	9
250 Rice --> RICE/Re82-1bc-4570/0-8		17.7061	43.7528	0.26	5.24	10
251 Rice --> RICE/Re82-1bc-4570/8-15		10.6636	26.3503	0.16	3.16	11
252 Rice --> RICE/Re82-1bc-4570/15-25		3.0428	7.5189	0.04	0.9	12
253 Residential --> URBN/I-E-3bc-4509/15-25		2.4164	5.9709	0.04	0.72	13
254 Residential --> URBN/I-E-3bc-4509/25-45		0.0138	0.034	0	0	14
255 Residential --> URBN/I-E-3bc-4509/0-8		4.1994	10.3768	0.06	1.24	15
256 Residential --> URBN/I-E-3bc-4509/8-15		4.5918	11.3465	0.07	1.36	16
257 Residential --> URBN/Jd10-2-3a-4515/0-8		44.6784	110.4026	0.66	13.23	17
258 Residential --> URBN/Jd10-2-3a-4515/8-15		40.0178	98.886	0.59	11.85	18
259 Residential --> URBN/Jd10-2-3a-4515/15-25		13.2176	32.6615	0.19	3.91	19
260 Residential --> URBN/Jd10-2-3a-4515/25-45		0.6953	1.7181	0.01	0.21	20

261 Residential --> URBN/Re82-1bc-4570/8-15	9.8857	24.4281	0.15	2.93	21
262 Residential --> URBN/Re82-1bc-4570/0-8	15.3862	38.02	0.23	4.56	22
263 Residential --> URBN/Re82-1bc-4570/25-45	0.0207	0.051	0	0.01	23
264 Residential --> URBN/Re82-1bc-4570/15-25	2.8225	6.9746	0.04	0.84	24
265 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/0-8	1.3562	3.3512	0.02	0.4	25
266 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/15-25	1.1703	2.8919	0.02	0.35	26
267 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/8-15	1.721	4.2528	0.03	0.51	27
268 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/25-45	0.0344	0.0851	0	0.01	28
269 Water --> WATR/Jd10-2-3a-4515/0-8	0.0207	0.051	0	0.01	29

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 20	342.4472	846.2041	5.03		
LANDUSE:					
Rice --> RICE	206.1058	509.2977	3.03	60.19	
Residential --> URBN	125.3611	309.7736	1.84	36.61	
Agricultural Land-Generic --> AGRL	1.5971	3.9466	0.02	0.47	
Water --> WATR	9.3832	23.1862	0.14	2.74	
SOILS:					
Jd10-2-3a-4515	118.4218	292.6263	1.74	34.58	
Re82-1bc-4570	224.0253	553.5778	3.29	65.42	
SLOPE:					
15-25	27.3715	67.6364	0.4	7.99	
8-15	123.4748	305.1125	1.81	36.06	
0-8	190.4718	470.6653	2.8	55.62	
25-45	1.129	2.7898	0.02	0.33	
HRUs					
270 Rice --> RICE/Jd10-2-3a-4515/15-25	3.7657	9.3051	0.06	1.1	1
271 Rice --> RICE/Jd10-2-3a-4515/8-15	23.1446	57.1916	0.34	6.76	2
272 Rice --> RICE/Jd10-2-3a-4515/0-8	38.7993	95.875	0.57	11.33	3
273 Rice --> RICE/Re82-1bc-4570/8-15	47.3495	117.0029	0.7	13.83	4
274 Rice --> RICE/Re82-1bc-4570/0-8	79.7189	196.9895	1.17	23.28	5
275 Rice --> RICE/Re82-1bc-4570/15-25	12.3434	30.501	0.18	3.6	6
276 Rice --> RICE/Re82-1bc-4570/25-45	0.9844	2.4326	0.01	0.29	7
277 Residential --> URBN/Jd10-2-3a-4515/15-25	4.5504	11.2444	0.07	1.33	8
278 Residential --> URBN/Jd10-2-3a-4515/25-45	0.0757	0.1871	0	0.02	9
279 Residential --> URBN/Jd10-2-3a-4515/8-15	18.1674	44.8925	0.27	5.31	10
280 Residential --> URBN/Jd10-2-3a-4515/0-8	23.6678	58.4844	0.35	6.91	11
281 Residential --> URBN/Re82-1bc-4570/8-15	30.4419	75.2234	0.45	8.89	12
282 Residential --> URBN/Re82-1bc-4570/0-8	42.4892	104.993	0.62	12.41	13
283 Residential --> URBN/Re82-1bc-4570/15-25	5.8998	14.5786	0.09	1.72	14
284 Residential --> URBN/Re82-1bc-4570/25-45	0.0688	0.1701	0	0.02	15
285 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/15-25	0.179	0.4423	0	0.05	16
286 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/8-15	0.9431	2.3305	0.01	0.28	17

287 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/0-8	0.475	1.1738	0.01	0.14	18
288 Water --> WATR/Jd10-2-3a-4515/15-25	0.1583	0.3913	0	0.05	19
289 Water --> WATR/Jd10-2-3a-4515/0-8	2.9189	7.2127	0.04	0.85	20
290 Water --> WATR/Jd10-2-3a-4515/8-15	1.5765	3.8956	0.02	0.46	21
291 Water --> WATR/Re82-1bc-4570/8-15	1.8518	4.576	0.03	0.54	22
292 Water --> WATR/Re82-1bc-4570/0-8	2.4026	5.9369	0.04	0.7	23
293 Water --> WATR/Re82-1bc-4570/15-25	0.475	1.1738	0.01	0.14	24

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 21	132.0112	326.2064	1.94		
LANDUSE:					
Rice --> RICE	45.4357	112.2738	0.67	34.42	
Residential --> URBN	77.6881	191.9712	1.14	58.85	
Agricultural Land-Generic --> AGRL	0.0344	0.0851	0	0.03	
Agricultural Land-Row Crops --> AGRR	2.3682	5.8518	0.03	1.79	
Water --> WATR	6.4849	16.0245	0.1	4.91	
SOILS:					
Jd10-2-3a-4515	132.0112	326.2064	1.94	100	
SLOPE:					
8-15	51.9412	128.3493	0.76	39.35	
25-45	1.4939	3.6914	0.02	1.13	
15-25	13.3829	33.0697	0.2	10.14	
0-8	65.0281	160.6876	0.96	49.26	
45-9999	0.1652	0.4083	0	0.13	
HRUs					
294 Rice --> RICE/Jd10-2-3a-4515/8-15	16.7148	41.3031	0.25	12.66	1
295 Rice --> RICE/Jd10-2-3a-4515/25-45	0.0688	0.1701	0	0.05	2
296 Rice --> RICE/Jd10-2-3a-4515/15-25	4.4265	10.9382	0.07	3.35	3
297 Rice --> RICE/Jd10-2-3a-4515/0-8	24.2255	59.8623	0.36	18.35	4
298 Residential --> URBN/Jd10-2-3a-4515/25-45	0.0688	0.1701	0	0.05	5
299 Residential --> URBN/Jd10-2-3a-4515/0-8	38.1453	94.2589	0.56	28.9	6
300 Residential --> URBN/Jd10-2-3a-4515/8-15	32.3006	79.8165	0.47	24.47	7
301 Residential --> URBN/Jd10-2-3a-4515/15-25	7.1733	17.7256	0.11	5.43	8
302 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/8-15	0.0069	0.017	0	0.01	9
303 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/0-8	0.0275	0.068	0	0.02	10
304 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/15-25	0.6471	1.5991	0.01	0.49	11
305 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/25-45	0.8468	2.0924	0.01	0.64	12
306 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/0-8	0.3236	0.7995	0	0.25	13
307 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/8-15	0.4888	1.2078	0.01	0.37	14
308 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/45-9999	0.062	0.1531	0	0.05	15
309 Water --> WATR/Jd10-2-3a-4515/45-9999	0.1033	0.2552	0	0.08	16
310 Water --> WATR/Jd10-2-3a-4515/25-45	0.5094	1.2588	0.01	0.39	17
311 Water --> WATR/Jd10-2-3a-4515/15-25	1.1359	2.8068	0.02	0.86	18
312 Water --> WATR/Jd10-2-3a-4515/0-8	2.3062	5.6987	0.03	1.75	19
313 Water --> WATR/Jd10-2-3a-4515/8-15	2.4301	6.0049	0.04	1.84	20

Lampiran 5. Distribusi HRU (Skenario 1)

SWAT model simulation Date: 5/18/2019 12:00:00 AM Time: 0 0:00:00
MULTIPLE HRUs LandUse/Soil/Slope OPTION THRESHOLDS : 0 / 0 / 0 [%]
Number of HRUs: 311
Number of Subbasins: 21

	Area [ha]	Area[acres]
Watershed	6803.9828	16812.9817

	Area [ha]	Area[acres]	%Wat.Area
LANDUSE:			
Rice --> RICE	1729.1779	4272.8849	25.41
Residential --> URBN	4690.6465	11590.8219	68.94
Agricultural Land-Generic --> AGRL	280.6822	693.5798	4.13
Agricultural Land-Row Crops --> AGRR	29.5883	73.114	0.43
Range-Brush --> RNGB	19.8127	48.9582	0.29
Industrial --> UIDU	3.6486	9.0159	0.05
Range-Grasses --> RNGE	3.4834	8.6077	0.05
Water --> WATR	46.9433	115.9992	0.69
SOILS:			
Re82-1bc-4570	6275.4284	15506.8974	92.23
I-E-3bc-4509	22.0638	54.5208	0.32
Jd10-2-3a-4515	506.4905	1251.5635	7.44
SLOPE:			
25-45	13.5619	33.512	0.2
8-15	1928.7712	4766.09	28.35
0-8	4511.4303	11147.9699	66.31
15-25	350.0542	865.0014	5.14
45-9999	0.1652	0.4083	0

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 1	432.3134	1068.268	6.35		
LANDUSE:					
Rice --> RICE	104.977	259.4035	1.54	24.28	
Residential --> URBN	167.3409	413.5077	2.46	38.71	
Agricultural Land-Generic --> AGRL	147.1289	363.5629	2.16	34.03	
Agricultural Land-Row Crops --> AGRR	10.9321	27.0138	0.16	2.53	
Range-Brush --> RNGB	1.9345	4.7801	0.03	0.45	
SOILS:					
Re82-1bc-4570	432.3134	1068.268	6.35	100	
SLOPE:					
25-45	0.3649	0.9016	0.01	0.08	
8-15	156.4914	386.6981	2.3	36.2	
0-8	245.4558	606.5336	3.61	56.78	
15-25	30.0013	74.1347	0.44	6.94	
HRUs					
1 Rice --> RICE/Re82-1bc-4570/25-45	0.1101	0.2722	0	0.03	1
2 Rice --> RICE/Re82-1bc-4570/8-15	37.5326	92.7449	0.55	8.68	2
3 Rice --> RICE/Re82-1bc-4570/0-8	61.524	152.0289	0.9	14.23	3
4 Rice --> RICE/Re82-1bc-4570/15-25	5.8103	14.3574	0.09	1.34	4
5 Residential --> URBN/Re82-1bc-4570/25-45	0.1996	0.4933	0	0.05	5
6 Residential --> URBN/Re82-1bc-4570/8-15	59.2935	146.5173	0.87	13.72	6
7 Residential --> URBN/Re82-1bc-4570/0-8	93.1156	230.0932	1.37	21.54	7
8 Residential --> URBN/Re82-1bc-4570/15-25	14.7322	36.4039	0.22	3.41	8
9 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/25-45	0.0207	0.051	0	0	9
10 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	82.2179	203.1645	1.21	19.02	10
11 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	55.9065	138.1478	0.82	12.93	11
12 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	8.9839	22.1996	0.13	2.08	12
13 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	7.4212	18.3381	0.11	1.72	13

14 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/25-45	0.0344	0.0851	0	0.01	14
15 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	3.0153	7.4509	0.04	0.7	15
16 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.4612	1.1397	0.01	0.11	16
17 Range-Brush --> RNGB/Re82-1bc-4570/15-25	0.0138	0.034	0	0	17
18 Range-Brush --> RNGB/Re82-1bc-4570/0-8	1.1772	2.9089	0.02	0.27	18
19 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.7435	1.8372	0.01	0.17	19

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 2	316.1014	781.1023	4.65		
LANDUSE:					
Rice --> RICE	8.4056	20.7706	0.12	2.66	
Residential --> URBN	253.2625	625.8243	3.72	80.12	
Agricultural Land-Generic --> AGRL	53.2699	131.6325	0.78	16.85	
Range-Brush --> RNGB	0.062	0.1531	0	0.02	
Industrial --> UIDU	1.1015	2.7218	0.02	0.35	
SOILS:					
Re82-1bc-4570	316.1014	781.1023	4.65	100	
SLOPE:					
0-8	201.8238	498.7167	2.97	63.85	
15-25	14.3467	35.4513	0.21	4.54	
8-15	99.8827	246.8152	1.47	31.6	
25-45	0.0482	0.1191	0	0.02	
HRUs					
20 Rice --> RICE/Re82-1bc-4570/0-8	4.8327	11.9418	0.07	1.53	1
21 Rice --> RICE/Re82-1bc-4570/15-25	0.4268	1.0547	0.01	0.14	2
22 Rice --> RICE/Re82-1bc-4570/8-15	3.1461	7.7741	0.05	1	3
23 Residential --> URBN/Re82-1bc-4570/0-8	163.4238	403.8284	2.4	51.7	4
24 Residential --> URBN/Re82-1bc-4570/25-45	0.0482	0.1191	0	0.02	5
25 Residential --> URBN/Re82-1bc-4570/15-25	11.9303	29.4804	0.18	3.77	6
26 Residential --> URBN/Re82-1bc-4570/8-15	77.8602	192.3964	1.14	24.63	7
27 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	1.9758	4.8822	0.03	0.63	8
28 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	18.725	46.2704	0.28	5.92	9
29 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	32.5691	80.4799	0.48	10.3	10
30 Range-Brush --> RNGB/Re82-1bc-4570/0-8	0.0275	0.068	0	0.01	11
31 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.0344	0.0851	0	0.01	12
32 Industrial --> UIDU/Re82-1bc-4570/15-25	0.0138	0.034	0	0	13
33 Industrial --> UIDU/Re82-1bc-4570/8-15	0.117	0.2892	0	0.04	14
34 Industrial --> UIDU/Re82-1bc-4570/0-8	0.9707	2.3986	0.01	0.31	15

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN # 3	726.6539	1795.598	10.68	
LANDUSE:				
Rice --> RICE	60.7186	150.0386	0.89	8.36
Residential --> URBN	636.1199	1571.884	9.35	87.54
Agricultural Land-Generic --> AGRL	23.8468	58.9267	0.35	3.28
Agricultural Land-Row Crops --> AGRR	4.757	11.7547	0.07	0.65
Range-Brush --> RNGB	0.6953	1.7181	0.01	0.1
Industrial --> UIDU	0.5163	1.2758	0.01	0.07
SOILS:				
Re82-1bc-4570	726.6538	1795.598	10.68	100
SLOPE:				
15-25	22.9519	56.7153	0.34	3.16
0-8	509.375	1258.6912	7.49	70.1
8-15	194.1961	479.8683	2.85	26.72
25-45	0.1308	0.3232	0	0.02

HRUs					
35 Rice --> RICE/Re82-1bc-4570/15-25	1.2805	3.1641	0.02	0.18	1
36 Rice --> RICE/Re82-1bc-4570/0-8	45.6078	112.6991	0.67	6.28	2
37 Rice --> RICE/Re82-1bc-4570/8-15	13.8303	34.1755	0.2	1.9	3
38 Residential --> URBN/Re82-1bc-4570/15-25	20.2671	50.0809	0.3	2.79	4
39 Residential --> URBN/Re82-1bc-4570/25-45	0.1308	0.3232	0	0.02	5
40 Residential --> URBN/Re82-1bc-4570/8-15	171.3406	423.3912	2.52	23.58	6
41 Residential --> URBN/Re82-1bc-4570/0-8	444.3814	1098.0886	6.53	61.15	7
42 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	14.8974	36.8122	0.22	2.05	8
43 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	7.7034	19.0355	0.11	1.06	9
44 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	1.246	3.079	0.02	0.17	10
45 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.9638	2.3816	0.01	0.13	11
46 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.1583	0.3913	0	0.02	12
47 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	3.6349	8.9819	0.05	0.5	13
48 Range-Brush --> RNGB/Re82-1bc-4570/0-8	0.4681	1.1568	0.01	0.06	14
49 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.2272	0.5614	0	0.03	15
50 Industrial --> UIDU/Re82-1bc-4570/0-8	0.3855	0.9526	0.01	0.05	16
51 Industrial --> UIDU/Re82-1bc-4570/8-15	0.1308	0.3232	0	0.02	17

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 4	621.2362	1535.1058	9.13		
LANDUSE:					
Rice --> RICE	167.4166	413.6949	2.46	26.95	
Residential --> URBN	435.012	1074.9364	6.39	70.02	
Agricultural Land-Generic --> AGRL	11.71	28.936	0.17	1.88	
Agricultural Land-Row Crops --> AGRR	5.2802	13.0476	0.08	0.85	
Range-Grasses --> RNGE	1.012	2.5006	0.01	0.16	
Range-Brush --> RNGB	0.8055	1.9903	0.01	0.13	
SOILS:					
Re82-1bc-4570	621.2362	1535.1058	9.13	100	
SLOPE:					
8-15	143.6799	355.0403	2.11	23.13	
15-25	11.235	27.7622	0.17	1.81	
0-8	466.2456	1152.1161	6.85	75.05	
25-45	0.0757	0.1871	0	0.01	
HRUs					
52 Rice --> RICE/Re82-1bc-4570/8-15	35.8666	88.6282	0.53	5.77	1
53 Rice --> RICE/Re82-1bc-4570/15-25	1.9413	4.7972	0.03	0.31	2
54 Rice --> RICE/Re82-1bc-4570/0-8	129.6087	320.2695	1.9	20.86	3
55 Residential --> URBN/Re82-1bc-4570/8-15	101.9893	252.0206	1.5	16.42	4
56 Residential --> URBN/Re82-1bc-4570/15-25	8.3781	20.7026	0.12	1.35	5
57 Residential --> URBN/Re82-1bc-4570/25-45	0.0757	0.1871	0	0.01	6
58 Residential --> URBN/Re82-1bc-4570/0-8	324.5689	802.0261	4.77	52.25	7
59 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	3.8896	9.6113	0.06	0.63	8
60 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.4888	1.2078	0.01	0.08	9
61 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	7.3317	18.1169	0.11	1.18	10
62 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	3.7381	9.2371	0.05	0.6	11
63 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	1.246	3.079	0.02	0.2	12
64 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.296	0.7315	0	0.05	13
65 Range-Grasses --> RNGE/Re82-1bc-4570/0-8	0.654	1.6161	0.01	0.11	14
66 Range-Grasses --> RNGE/Re82-1bc-4570/15-25	0.0138	0.034	0	0	15
67 Range-Grasses --> RNGE/Re82-1bc-4570/8-15	0.3442	0.8506	0.01	0.06	16
68 Range-Brush --> RNGB/Re82-1bc-4570/0-8	0.3442	0.8506	0.01	0.06	17
69 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.3442	0.8506	0.01	0.06	18
70 Range-Brush --> RNGB/Re82-1bc-4570/15-25	0.117	0.2892	0	0.02	19

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN # 5	206.092	509.2637	3.03	
LANDUSE:				
Rice --> RICE	58.1714	143.7445	0.85	28.23
Residential --> URBN	124.2872	307.1198	1.83	60.31
Agricultural Land-Generic --> AGRL	4.5918	11.3465	0.07	2.23
Agricultural Land-Row Crops --> AGRR	3.2218	7.9612	0.05	1.56
Range-Brush --> RNGB	14.7184	36.3699	0.22	7.14
Industrial --> UIDU	1.1015	2.7218	0.02	0.53

SOILS:				
Re82-1bc-4570	206.092	509.2637	3.03	100	
SLOPE:				
25-45	0.1515	0.3742	0	0.07	
8-15	55.0804	136.1064	0.81	26.73	
0-8	141.8143	350.4303	2.08	68.81	
15-25	9.0458	22.3527	0.13	4.39	
HRUs					
71 Rice --> RICE/Re82-1bc-4570/25-45	0.0344	0.0851	0	0.02	1
72 Rice --> RICE/Re82-1bc-4570/8-15	13.376	33.0527	0.2	6.49	2
73 Rice --> RICE/Re82-1bc-4570/0-8	42.7508	105.6394	0.63	20.74	3
74 Rice --> RICE/Re82-1bc-4570/15-25	2.0102	4.9673	0.03	0.98	4
75 Residential --> URBN/Re82-1bc-4570/25-45	0.0275	0.068	0	0.01	5
76 Residential --> URBN/Re82-1bc-4570/0-8	85.7013	211.7722	1.26	41.58	6
77 Residential --> URBN/Re82-1bc-4570/15-25	5.0805	12.5543	0.07	2.47	7
78 Residential --> URBN/Re82-1bc-4570/8-15	33.4778	82.7254	0.49	16.24	8
79 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	1.6178	3.9976	0.02	0.78	9
80 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.2134	0.5273	0	0.1	10
81 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	2.7606	6.8215	0.04	1.34	11
82 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.0069	0.017	0	0	12
83 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.716	1.7692	0.01	0.35	13
84 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	2.499	6.1751	0.04	1.21	14
85 Range-Brush --> RNGB/Re82-1bc-4570/15-25	1.3837	3.4192	0.02	0.67	15
86 Range-Brush --> RNGB/Re82-1bc-4570/0-8	7.8273	19.3417	0.12	3.8	16
87 Range-Brush --> RNGB/Re82-1bc-4570/25-45	0.0757	0.1871	0	0.04	17
88 Range-Brush --> RNGB/Re82-1bc-4570/8-15	5.4316	13.4218	0.08	2.64	18
89 Industrial --> UIDU/Re82-1bc-4570/25-45	0.0138	0.034	0	0.01	19
90 Industrial --> UIDU/Re82-1bc-4570/15-25	0.3511	0.8676	0.01	0.17	20
91 Industrial --> UIDU/Re82-1bc-4570/0-8	0.2754	0.6804	0	0.13	21
92 Industrial --> UIDU/Re82-1bc-4570/8-15	0.4612	1.1397	0.01	0.22	22

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	6	3.3733	8.3355	0.05	
LANDUSE:					
Residential --> URBN		3.3733	8.3355	0.05	100
SOILS:					
Re82-1bc-4570		3.3733	8.3355	0.05	100
SLOPE:					
0-8		2.4301	6.0049	0.04	72.04
15-25		0.0207	0.051	0	0.61
8-15		0.9225	2.2795	0.01	27.35
HRUs					
93 Residential --> URBN/Re82-1bc-4570/0-8		2.4301	6.0049	0.04	72.04	1
94 Residential --> URBN/Re82-1bc-4570/15-25		0.0207	0.051	0	0.61	2
95 Residential --> URBN/Re82-1bc-4570/8-15		0.9225	2.2795	0.01	27.35	3

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	7	180.8477	446.8837	2.66	
LANDUSE:					
Rice --> RICE		118.4632	292.7284	1.74	65.5
Residential --> URBN		52.313	129.2679	0.77	28.93
Agricultural Land-Generic --> AGRL		4.5986	11.3635	0.07	2.54
Agricultural Land-Row Crops --> AGRR		0.2478	0.6124	0	0.14
Water --> WATR		4.2957	10.615	0.06	2.38
Industrial --> UIDU		0.9294	2.2965	0.01	0.51
SOILS:					
Re82-1bc-4570		180.8477	446.8837	2.66	100
SLOPE:					
0-8		142.3857	351.8422	2.09	78.73
8-15		35.9492	88.8324	0.53	19.88
15-25		2.5127	6.2091	0.04	1.39

HRUs					
96 Rice --> RICE/Re82-1bc-4570/0-8	97.7762	241.6098	1.44	54.07	1
97 Rice --> RICE/Re82-1bc-4570/8-15	19.3033	47.6993	0.28	10.67	2
98 Rice --> RICE/Re82-1bc-4570/15-25	1.3837	3.4192	0.02	0.77	3
99 Residential --> URBN/Re82-1bc-4570/0-8	37.9938	93.8847	0.56	21.01	4
100 Residential --> URBN/Re82-1bc-4570/8-15	13.3966	33.1038	0.2	7.41	5
101 Residential --> URBN/Re82-1bc-4570/15-25	0.9225	2.2795	0.01	0.51	6
102 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.0826	0.2041	0	0.05	7
103 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	1.7417	4.3038	0.03	0.96	8
104 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	2.7743	6.8555	0.04	1.53	9
105 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.0757	0.1871	0	0.04	10
106 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.0207	0.051	0	0.01	11
107 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	0.1515	0.3742	0	0.08	12
108 Water --> WATR/Re82-1bc-4570/8-15	1.1634	2.8749	0.02	0.64	13
109 Water --> WATR/Re82-1bc-4570/0-8	3.029	7.4849	0.04	1.67	14
110 Water --> WATR/Re82-1bc-4570/15-25	0.1033	0.2552	0	0.06	15
111 Industrial --> UIDU/Re82-1bc-4570/0-8	0.6609	1.6331	0.01	0.37	16
112 Industrial --> UIDU/Re82-1bc-4570/8-15	0.2685	0.6634	0	0.15	17

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	8	191.4218	473.0128	2.81		
LANDUSE:						
Rice --> RICE		53.9789	133.3847	0.79	28.2	
Residential --> URBN		129.705	320.5076	1.91	67.76	
Agricultural Land-Generic --> AGRL		6.9255	17.1132	0.1	3.62	
Water --> WATR		0.8123	2.0073	0.01	0.42	
SOILS:						
Re82-1bc-4570		191.4218	473.0128	2.81	100	
SLOPE:						
15-25		5.3284	13.1667	0.08	2.78	
8-15		44.9056	110.9639	0.66	23.46	
0-8		140.9469	348.2869	2.07	73.63	
25-45		0.2409	0.5954	0	0.13	
HRUs						
113 Rice --> RICE/Re82-1bc-4570/15-25		0.2547	0.6294	0	0.13	1
114 Rice --> RICE/Re82-1bc-4570/8-15		7.7585	19.1716	0.11	4.05	2
115 Rice --> RICE/Re82-1bc-4570/0-8		45.9657	113.5836	0.68	24.01	3
116 Residential --> URBN/Re82-1bc-4570/25-45		0.2409	0.5954	0	0.13	4
117 Residential --> URBN/Re82-1bc-4570/0-8		90.1691	222.8124	1.33	47.1	5
118 Residential --> URBN/Re82-1bc-4570/8-15		34.5655	85.4131	0.51	18.06	6
119 Residential --> URBN/Re82-1bc-4570/15-25		4.7294	11.6867	0.07	2.47	7
120 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25		0.3304	0.8165	0	0.17	8
121 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		4.1649	10.2918	0.06	2.18	9
122 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		2.4301	6.0049	0.04	1.27	10
123 Water --> WATR/Re82-1bc-4570/0-8		0.6471	1.5991	0.01	0.34	11
124 Water --> WATR/Re82-1bc-4570/8-15		0.1515	0.3742	0	0.08	12
125 Water --> WATR/Re82-1bc-4570/15-25		0.0138	0.034	0	0.01	13

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	9	731.6724	1807.9991	10.75	
LANDUSE:					
Rice --> RICE		37.4018	92.4217	0.55	5.11
Residential --> URBN		663.7117	1640.0648	9.75	90.71
Agricultural Land-Generic --> AGRL		9.0045	22.2506	0.13	1.23
Range-Grasses --> RNGE		0.4268	1.0547	0.01	0.06
Range-Brush --> RNGB		1.5971	3.9466	0.02	0.22
Water --> WATR		19.5304	48.2607	0.29	2.67
SOILS:					
Re82-1bc-4570		731.6724	1807.9991	10.75	100
SLOPE:					
0-8		521.9043	1289.6515	7.67	71.33
8-15		176.5244	436.2007	2.59	24.13
15-25		31.9839	79.0339	0.47	4.37
25-45		1.2598	3.113	0.02	0.17

HRUs					
126 Rice --> RICE/Re82-1bc-4570/0-8	28.356	70.069	0.42	3.88	1
127 Rice --> RICE/Re82-1bc-4570/8-15	8.3574	20.6516	0.12	1.14	2
128 Rice --> RICE/Re82-1bc-4570/15-25	0.6884	1.7011	0.01	0.09	3
129 Residential --> URBN/Re82-1bc-4570/25-45	1.129	2.7898	0.02	0.15	4
130 Residential --> URBN/Re82-1bc-4570/0-8	477.5701	1180.0995	7.02	65.27	5
131 Residential --> URBN/Re82-1bc-4570/8-15	157.648	389.556	2.32	21.55	6
132 Residential --> URBN/Re82-1bc-4570/15-25	27.3647	67.6194	0.4	3.74	7
133 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	2.9327	7.2468	0.04	0.4	8
134 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	5.4041	13.3538	0.08	0.74	9
135 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.6678	1.6501	0.01	0.09	10
136 Range-Grasses --> RNGE/Re82-1bc-4570/15-25	0.0551	0.1361	0	0.01	11
137 Range-Grasses --> RNGE/Re82-1bc-4570/0-8	0.0757	0.1871	0	0.01	12
138 Range-Grasses --> RNGE/Re82-1bc-4570/8-15	0.296	0.7315	0	0.04	13
139 Range-Brush --> RNGB/Re82-1bc-4570/8-15	0.358	0.8846	0.01	0.05	14
140 Range-Brush --> RNGB/Re82-1bc-4570/0-8	1.2392	3.062	0.02	0.17	15
141 Water --> WATR/Re82-1bc-4570/25-45	0.1308	0.3232	0	0.02	16
142 Water --> WATR/Re82-1bc-4570/8-15	6.9324	17.1303	0.1	0.95	17
143 Water --> WATR/Re82-1bc-4570/15-25	3.208	7.9272	0.05	0.44	18
144 Water --> WATR/Re82-1bc-4570/0-8	9.2592	22.88	0.14	1.27	19

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	10	267.8707	661.922	3.94	
LANDUSE:					
Rice --> RICE		40.2243	99.3963	0.59	15.02
Residential --> URBN		225.5467	557.3373	3.31	84.2
Agricultural Land-Generic --> AGRL		0.0551	0.1361	0	0.02
Range-Grasses --> RNGE		2.0446	5.0523	0.03	0.76
SOILS:					
Re82-1bc-4570		267.8707	661.922	3.94	100
SLOPE:					
8-15		43.8041	108.2421	0.64	16.35
15-25		2.2374	5.5286	0.03	0.84
0-8		221.8293	548.1512	3.26	82.81
HRUs					
145 Rice --> RICE/Re82-1bc-4570/8-15		6.7534	16.688	0.1	2.52 1
146 Rice --> RICE/Re82-1bc-4570/15-25		0.3717	0.9186	0.01	0.14 2
147 Rice --> RICE/Re82-1bc-4570/0-8		33.0992	81.7897	0.49	12.36 3
148 Residential --> URBN/Re82-1bc-4570/0-8		187.009	462.1087	2.75	69.81 4
149 Residential --> URBN/Re82-1bc-4570/8-15		36.679	90.6356	0.54	13.69 5
150 Residential --> URBN/Re82-1bc-4570/15-25		1.8587	4.593	0.03	0.69 6
151 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15		0.0138	0.034	0	0.01 7
152 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8		0.0413	0.1021	0	0.02 8
153 Range-Grasses --> RNGE/Re82-1bc-4570/0-8		1.6797	4.1507	0.02	0.63 9
154 Range-Grasses --> RNGE/Re82-1bc-4570/8-15		0.358	0.8846	0.01	0.13 10
155 Range-Grasses --> RNGE/Re82-1bc-4570/15-25		0.0069	0.017	0	0 11

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area
SUBBASIN #	11	187.0021	462.0917	2.75	
LANDUSE:					
Rice --> RICE		18.8627	46.6106	0.28	10.09
Residential --> URBN		168.1395	415.481	2.47	89.91
SOILS:					
Re82-1bc-4570		187.0022	462.0917	2.75	100
SLOPE:					
25-45		0.4819	1.1908	0.01	0.26
15-25		13.493	33.3419	0.2	7.22
0-8		114.0022	281.7051	1.68	60.96
8-15		59.025	145.8538	0.87	31.56

HRUs					
156 Rice --> RICE/Re82-1bc-4570/25-45	0.0688	0.1701	0	0.04	1
157 Rice --> RICE/Re82-1bc-4570/15-25	1.7142	4.2358	0.03	0.92	2
158 Rice --> RICE/Re82-1bc-4570/0-8	10.5948	26.1802	0.16	5.67	3
159 Rice --> RICE/Re82-1bc-4570/8-15	6.4849	16.0245	0.1	3.47	4
160 Residential --> URBN/Re82-1bc-4570/8-15	52.5401	129.8293	0.77	28.1	5
161 Residential --> URBN/Re82-1bc-4570/25-45	0.4131	1.0207	0.01	0.22	6
162 Residential --> URBN/Re82-1bc-4570/0-8	103.4074	255.5249	1.52	55.3	7
163 Residential --> URBN/Re82-1bc-4570/15-25	11.7788	29.1061	0.17	6.3	8

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	12	162.522	401.5999	2.39		
LANDUSE:						
Rice --> RICE		79.7189	196.9895	1.17	49.05	
Residential --> URBN		82.803	204.6105	1.22	50.95	
SOILS:						
Re82-1bc-4570		162.522	401.5999	2.39	100	
SLOPE:						
15-25		15.5514	38.4283	0.23	9.57	
0-8		85.3227	210.8366	1.25	52.5	
25-45		0.9225	2.2795	0.01	0.57	
8-15		60.7254	150.0556	0.89	37.36	
HRUs						
164 Rice --> RICE/Re82-1bc-4570/15-25		9.4451	23.3393	0.14	5.81	1
165 Rice --> RICE/Re82-1bc-4570/0-8		40.8026	100.8253	0.6	25.11	2
166 Rice --> RICE/Re82-1bc-4570/25-45		0.7779	1.9223	0.01	0.48	3
167 Rice --> RICE/Re82-1bc-4570/8-15		28.6933	70.9026	0.42	17.66	4
168 Residential --> URBN/Re82-1bc-4570/8-15		32.0321	79.153	0.47	19.71	5
169 Residential --> URBN/Re82-1bc-4570/0-8		44.5201	110.0113	0.65	27.39	6
170 Residential --> URBN/Re82-1bc-4570/25-45		0.1446	0.3572	0	0.09	7
171 Residential --> URBN/Re82-1bc-4570/15-25		6.1063	15.0889	0.09	3.76	8

		Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN #	13	714.8337	1766.3898	10.51		
LANDUSE:						
Rice --> RICE		268.1874	662.7045	3.94	37.52	
Residential --> URBN		433.3047	1070.7176	6.37	60.62	
Agricultural Land-Generic --> AGRL		10.7806	26.6395	0.16	1.51	
Water --> WATR		2.5609	6.3282	0.04	0.36	
SOILS:						
Re82-1bc-4570		714.8337	1766.3898	10.51	100	
SLOPE:						
25-45		0.1377	0.3402	0	0.02	
15-25		19.2757	47.6313	0.28	2.7	
8-15		174.9961	432.4242	2.57	24.48	
0-8		520.4241	1285.9941	7.65	72.8	
HRUs						
172 Rice --> RICE/Re82-1bc-4570/25-45		0.1101	0.2722	0	0.02	1
173 Rice --> RICE/Re82-1bc-4570/15-25		9.3143	23.0161	0.14	1.3	2
174 Rice --> RICE/Re82-1bc-4570/8-15		64.8284	160.1943	0.95	9.07	3
175 Rice --> RICE/Re82-1bc-4570/0-8		193.9345	479.2219	2.85	27.13	4
176 Residential --> URBN/Re82-1bc-4570/25-45		0.0275	0.068	0	0	5
177 Residential --> URBN/Re82-1bc-4570/15-25		9.1216	22.5398	0.13	1.28	6
178 Residential --> URBN/Re82-1bc-4570/8-15		104.5364	258.3148	1.54	14.62	7

179 Residential --> URBN/Re82-1bc-4570/0-8	319.6192	789.795	4.7	44.71	8
180 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	5.0943	12.5883	0.07	0.71	9
181 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	4.8534	11.9929	0.07	0.68	10
182 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.833	2.0584	0.01	0.12	11
183 Water --> WATR/Re82-1bc-4570/15-25	0.0069	0.017	0	0	12
184 Water --> WATR/Re82-1bc-4570/0-8	1.7761	4.3889	0.03	0.25	13
185 Water --> WATR/Re82-1bc-4570/8-15	0.7779	1.9223	0.01	0.11	14

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 14	442.8462	1094.2951	6.51		
LANDUSE:					
Rice --> RICE	14.1608	34.992	0.21	3.2	
Residential --> URBN	423.185	1045.7112	6.22	95.56	
Agricultural Land-Generic --> AGRL	2.7055	6.6854	0.04	0.61	
Agricultural Land-Row Crops --> AGRR	2.7812	6.8725	0.04	0.63	
Water --> WATR	0.0138	0.034	0	0	
SOILS:					
Re82-1bc-4570	442.8462	1094.2951	6.51	100	
SLOPE:					
0-8	336.4304	831.3363	4.94	75.97	
8-15	97.1428	240.0447	1.43	21.94	
15-25	9.2592	22.88	0.14	2.09	
25-45	0.0138	0.034	0	0	
HRUs					
186 Rice --> RICE/Re82-1bc-4570/0-8	11.5792	28.6128	0.17	2.61	1
187 Rice --> RICE/Re82-1bc-4570/8-15	2.3682	5.8518	0.03	0.53	2
188 Rice --> RICE/Re82-1bc-4570/15-25	0.2134	0.5273	0	0.05	3
189 Residential --> URBN/Re82-1bc-4570/25-45	0.0138	0.034	0	0	4
190 Residential --> URBN/Re82-1bc-4570/15-25	8.8875	21.9614	0.13	2.01	5
191 Residential --> URBN/Re82-1bc-4570/0-8	321.2783	793.8947	4.72	72.55	6
192 Residential --> URBN/Re82-1bc-4570/8-15	93.0054	229.821	1.37	21	7
193 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/15-25	0.1515	0.3742	0	0.03	8
194 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	1.3837	3.4192	0.02	0.31	9
195 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	1.1703	2.8919	0.02	0.26	10
196 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/8-15	0.5989	1.48	0.01	0.14	11
197 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/15-25	0.0069	0.017	0	0	12
198 Agricultural Land-Row Crops --> AGRR/Re82-1bc-4570/0-8	2.1754	5.3755	0.03	0.49	13
199 Water --> WATR/Re82-1bc-4570/0-8	0.0138	0.034	0	0	14

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 15	206.8768	511.2029	3.04		
LANDUSE:					
Rice --> RICE	23.6197	58.3654	0.35	11.42	
Residential --> URBN	183.2434	452.8036	2.69	88.58	
Water --> WATR	0.0138	0.034	0	0.01	
SOILS:					
Re82-1bc-4570	206.8768	511.2029	3.04	100	
SLOPE:					
25-45	0.9776	2.4156	0.01	0.47	
15-25	17.6579	43.6337	0.26	8.54	
0-8	119.0483	294.1743	1.75	57.55	
8-15	69.193	170.9794	1.02	33.45	
HRUs					
200 Rice --> RICE/Re82-1bc-4570/25-45	0.0207	0.051	0	0.01	1
201 Rice --> RICE/Re82-1bc-4570/15-25	2.1203	5.2394	0.03	1.02	2
202 Rice --> RICE/Re82-1bc-4570/0-8	12.4535	30.7732	0.18	6.02	3
203 Rice --> RICE/Re82-1bc-4570/8-15	9.0252	22.3017	0.13	4.36	4
204 Residential --> URBN/Re82-1bc-4570/25-45	0.9569	2.3646	0.01	0.46	5

205 Residential --> URBN/Re82-1bc-4570/15-25	15.5376	38.3942	0.23	7.51	6
206 Residential --> URBN/Re82-1bc-4570/8-15	60.1541	148.6437	0.88	29.08	7
207 Residential --> URBN/Re82-1bc-4570/0-8	106.5948	263.4011	1.57	51.53	8
208 Water --> WATR/Re82-1bc-4570/8-15	0.0138	0.034	0	0.01	9

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 16	189.7834	468.9642	2.79		
LANDUSE:					
Rice --> RICE	24.7211	61.0871	0.36	13.03	
Residential --> URBN	161.3517	398.708	2.37	85.02	
Agricultural Land-Generic --> AGRL	0.1515	0.3742	0	0.08	
Water --> WATR	3.5591	8.7948	0.05	1.88	
SOILS:					
Re82-1bc-4570	189.7834	468.9642	2.79	100	
SLOPE:					
25-45	0.7091	1.7522	0.01	0.37	
0-8	102.8636	254.181	1.51	54.2	
15-25	17.6924	43.7187	0.26	9.32	
8-15	68.5183	169.3123	1.01	36.1	
HRUs					
209 Rice --> RICE/Re82-1bc-4570/25-45	0.1515	0.3742	0	0.08	1
210 Rice --> RICE/Re82-1bc-4570/0-8	13.8166	34.1414	0.2	7.28	2
211 Rice --> RICE/Re82-1bc-4570/15-25	1.9895	4.9162	0.03	1.05	3
212 Rice --> RICE/Re82-1bc-4570/8-15	8.7636	21.6552	0.13	4.62	4
213 Residential --> URBN/Re82-1bc-4570/8-15	58.4674	144.4759	0.86	30.81	5
214 Residential --> URBN/Re82-1bc-4570/15-25	15.2347	37.6457	0.22	8.03	6
215 Residential --> URBN/Re82-1bc-4570/25-45	0.5507	1.3609	0.01	0.29	7
216 Residential --> URBN/Re82-1bc-4570/0-8	87.0988	215.2254	1.28	45.89	8
217 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/0-8	0.0895	0.2211	0	0.05	9
218 Agricultural Land-Generic --> AGRL/Re82-1bc-4570/8-15	0.062	0.1531	0	0.03	10
219 Water --> WATR/Re82-1bc-4570/0-8	1.8587	4.593	0.03	0.98	11
220 Water --> WATR/Re82-1bc-4570/8-15	1.2254	3.028	0.02	0.65	12
221 Water --> WATR/Re82-1bc-4570/25-45	0.0069	0.017	0	0	13
222 Water --> WATR/Re82-1bc-4570/15-25	0.4681	1.1568	0.01	0.25	14

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 17	409.4166	1011.6888	6.02		
LANDUSE:					
Rice --> RICE	288.957	714.0272	4.25	70.58	
Residential --> URBN	120.4389	297.6106	1.77	29.42	
Water --> WATR	0.0207	0.051	0	0.01	
SOILS:					
Re82-1bc-4570	409.4166	1011.6888	6.02	100	
SLOPE:					
0-8	222.4075	549.5802	3.27	54.32	
15-25	40.066	99.0051	0.59	9.79	
8-15	143.8176	355.3805	2.11	35.13	
25-45	3.1254	7.7231	0.05	0.76	
HRUs					
223 Rice --> RICE/Re82-1bc-4570/0-8	159.8303	394.9485	2.35	39.04	1
224 Rice --> RICE/Re82-1bc-4570/15-25	28.4248	70.2392	0.42	6.94	2
225 Rice --> RICE/Re82-1bc-4570/8-15	98.2236	242.7155	1.44	23.99	3
226 Rice --> RICE/Re82-1bc-4570/25-45	2.4783	6.124	0.04	0.61	4
227 Residential --> URBN/Re82-1bc-4570/15-25	11.6412	28.7659	0.17	2.84	5

228 Residential --> URBN/Re82-1bc-4570/8-15	45.5871	112.648	0.67	11.13	6
229 Residential --> URBN/Re82-1bc-4570/0-8	62.5635	154.5976	0.92	15.28	7
230 Residential --> URBN/Re82-1bc-4570/25-45	0.6471	1.5991	0.01	0.16	8
231 Water --> WATR/Re82-1bc-4570/0-8	0.0138	0.034	0	0	9
232 Water --> WATR/Re82-1bc-4570/8-15	0.0069	0.017	0	0	10

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 18	0.9638	2.3816	0.01		
LANDUSE:					
Rice --> RICE	0.5439	1.3439	0.01	56.43	
Residential --> URBN	0.1721	0.4253	0	17.86	
Water --> WATR	0.2478	0.6124	0	25.71	
SOILS:					
Re82-1bc-4570	0.9638	2.3816	0.01	100	
SLOPE:					
0-8	0.7228	1.7862	0.01	75	
8-15	0.2409	0.5954	0	25	
HRUs					
233 Rice --> RICE/Re82-1bc-4570/0-8	0.4406	1.0887	0.01	45.71	1
234 Rice --> RICE/Re82-1bc-4570/8-15	0.1033	0.2552	0	10.71	2
235 Residential --> URBN/Re82-1bc-4570/8-15	0.0482	0.1191	0	5	3
236 Residential --> URBN/Re82-1bc-4570/0-8	0.1239	0.3062	0	12.86	4
237 Water --> WATR/Re82-1bc-4570/8-15	0.0895	0.2211	0	9.29	5
238 Water --> WATR/Re82-1bc-4570/0-8	0.1583	0.3913	0	16.43	6

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 19	337.6971	834.4663	4.96		
LANDUSE:					
Rice --> RICE	195.4491	482.9644	2.87	57.88	
Residential --> URBN	137.9454	340.87	2.03	40.85	
Agricultural Land-Generic --> AGRL	4.282	10.581	0.06	1.27	
Water --> WATR	0.0207	0.051	0	0.01	
SOILS:					
I-E-3bc-4509	22.0638	54.5208	0.32	6.53	
Jd10-2-3a-4515	256.0575	632.7308	3.76	75.82	
Re82-1bc-4570	59.5758	147.2147	0.88	17.64	
SLOPE:					
15-25	46.6404	115.2507	0.69	13.81	
25-45	2.2993	5.6817	0.03	0.68	
8-15	128.2594	316.9353	1.89	37.98	
0-8	160.498	396.5986	2.36	47.53	
HRUs					
239 Rice --> RICE/I-E-3bc-4509/15-25	2.0584	5.0863	0.03	0.61	1
240 Rice --> RICE/I-E-3bc-4509/25-45	0.0757	0.1871	0	0.02	2
241 Rice --> RICE/I-E-3bc-4509/8-15	4.1236	10.1897	0.06	1.22	3
242 Rice --> RICE/I-E-3bc-4509/0-8	4.5849	11.3294	0.07	1.36	4
243 Rice --> RICE/Jd10-2-3a-4515/25-45	1.4113	3.4873	0.02	0.42	5
244 Rice --> RICE/Jd10-2-3a-4515/0-8	72.5663	179.3148	1.07	21.49	6
245 Rice --> RICE/Jd10-2-3a-4515/15-25	21.9124	54.1466	0.32	6.49	7
246 Rice --> RICE/Jd10-2-3a-4515/8-15	57.2558	141.482	0.84	16.95	8
247 Rice --> RICE/Re82-1bc-4570/25-45	0.0482	0.1191	0	0.01	9
248 Rice --> RICE/Re82-1bc-4570/15-25	3.0428	7.5189	0.04	0.9	10
249 Rice --> RICE/Re82-1bc-4570/0-8	17.7061	43.7528	0.26	5.24	11
250 Rice --> RICE/Re82-1bc-4570/8-15	10.6636	26.3503	0.16	3.16	12

251 Residential --> URBN/I-E-3bc-4509/25-45	0.0138	0.034	0	0	13
252 Residential --> URBN/I-E-3bc-4509/15-25	2.4164	5.9709	0.04	0.72	14
253 Residential --> URBN/I-E-3bc-4509/0-8	4.1994	10.3768	0.06	1.24	15
254 Residential --> URBN/I-E-3bc-4509/8-15	4.5918	11.3465	0.07	1.36	16
255 Residential --> URBN/Jd10-2-3a-4515/0-8	44.6784	110.4026	0.66	13.23	17
256 Residential --> URBN/Jd10-2-3a-4515/8-15	40.0178	98.886	0.59	11.85	18
257 Residential --> URBN/Jd10-2-3a-4515/15-25	13.2176	32.6615	0.19	3.91	19
258 Residential --> URBN/Jd10-2-3a-4515/25-45	0.6953	1.7181	0.01	0.21	20
259 Residential --> URBN/Re82-1bc-4570/0-8	15.3862	38.02	0.23	4.56	21
260 Residential --> URBN/Re82-1bc-4570/15-25	2.8225	6.9746	0.04	0.84	22
261 Residential --> URBN/Re82-1bc-4570/8-15	9.8857	24.4281	0.15	2.93	23
262 Residential --> URBN/Re82-1bc-4570/25-45	0.0207	0.051	0	0.01	24
263 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/8-15	1.721	4.2528	0.03	0.51	25
264 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/15-25	1.1703	2.8919	0.02	0.35	26
265 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/0-8	1.3562	3.3512	0.02	0.4	27
266 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/25-45	0.0344	0.0851	0	0.01	28
267 Water --> WATR/Jd10-2-3a-4515/0-8	0.0207	0.051	0	0.01	29

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 20	342.4472	846.2041	5.03		
LANDUSE:					
Rice --> RICE	121.5886	300.4514	1.79	35.51	
Residential --> URBN	209.8783	518.6198	3.08	61.29	
Agricultural Land-Generic --> AGRL	1.5971	3.9466	0.02	0.47	
Water --> WATR	9.3832	23.1862	0.14	2.74	
SOILS:					
Jd10-2-3a-4515	118.4218	292.6263	1.74	34.58	
Re82-1bc-4570	224.0253	553.5778	3.29	65.42	
SLOPE:					
15-25	27.3715	67.6364	0.4	7.99	
0-8	190.4718	470.6653	2.8	55.62	
8-15	123.4748	305.1125	1.81	36.06	
25-45	1.129	2.7898	0.02	0.33	
HRUs					
268 Rice --> RICE/Jd10-2-3a-4515/15-25	2.7055	6.6854	0.04	0.79	1
269 Rice --> RICE/Jd10-2-3a-4515/0-8	26.9929	66.7008	0.4	7.88	2
270 Rice --> RICE/Jd10-2-3a-4515/8-15	15.8749	39.2278	0.23	4.64	3
271 Rice --> RICE/Re82-1bc-4570/0-8	43.1295	106.575	0.63	12.59	4
272 Rice --> RICE/Re82-1bc-4570/15-25	6.5744	16.2457	0.1	1.92	5
273 Rice --> RICE/Re82-1bc-4570/8-15	26.153	64.6255	0.38	7.64	6
274 Rice --> RICE/Re82-1bc-4570/25-45	0.1583	0.3913	0	0.05	7
275 Residential --> URBN/Jd10-2-3a-4515/25-45	0.0757	0.1871	0	0.02	8
276 Residential --> URBN/Jd10-2-3a-4515/15-25	5.6106	13.8641	0.08	1.64	9
277 Residential --> URBN/Jd10-2-3a-4515/0-8	35.4742	87.6586	0.52	10.36	10
278 Residential --> URBN/Jd10-2-3a-4515/8-15	25.4371	62.8563	0.37	7.43	11
279 Residential --> URBN/Re82-1bc-4570/8-15	51.6383	127.6009	0.76	15.08	12
280 Residential --> URBN/Re82-1bc-4570/15-25	11.6687	28.8339	0.17	3.41	13

281 Residential --> URBN/Re82-1bc-4570/0-8	79.0787	195.4074	1.16	23.09	14
282 Residential --> URBN/Re82-1bc-4570/25-45	0.8949	2.2115	0.01	0.26	15
283 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/15-25	0.179	0.4423	0	0.05	16
284 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/8-15	0.9431	2.3305	0.01	0.28	17
285 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/0-8	0.475	1.1738	0.01	0.14	18
286 Water --> WATR/Jd10-2-3a-4515/0-8	2.9189	7.2127	0.04	0.85	19
287 Water --> WATR/Jd10-2-3a-4515/8-15	1.5765	3.8956	0.02	0.46	20
288 Water --> WATR/Jd10-2-3a-4515/15-25	0.1583	0.3913	0	0.05	21
289 Water --> WATR/Re82-1bc-4570/15-25	0.475	1.1738	0.01	0.14	22
290 Water --> WATR/Re82-1bc-4570/0-8	2.4026	5.9369	0.04	0.7	23
291 Water --> WATR/Re82-1bc-4570/8-15	1.8518	4.576	0.03	0.54	24

	Area [ha]	Area[acres]	%Wat.Area	%Sub.Area	
SUBBASIN # 21	132.0112	326.2064	1.94		
LANDUSE:					
Rice --> RICE	43.6113	107.7658	0.64	33.04	
Residential --> URBN	79.5124	196.4791	1.17	60.23	
Agricultural Land-Generic --> AGRL	0.0344	0.0851	0	0.03	
Agricultural Land-Row Crops --> AGRR	2.3682	5.8518	0.03	1.79	
Water --> WATR	6.4849	16.0245	0.1	4.91	
SOILS:					
Jd10-2-3a-4515	132.0112	326.2064	1.94	100	
SLOPE:					
8-15	51.9412	128.3493	0.76	39.35	
25-45	1.4939	3.6914	0.02	1.13	
15-25	13.3829	33.0697	0.2	10.14	
0-8	65.0281	160.6876	0.96	49.26	
45-9999	0.1652	0.4083	0	0.13	
HRUs					
292 Rice --> RICE/Jd10-2-3a-4515/8-15	16.1434	39.8912	0.24	12.23	1
293 Rice --> RICE/Jd10-2-3a-4515/25-45	0.0688	0.1701	0	0.05	2
294 Rice --> RICE/Jd10-2-3a-4515/15-25	4.4059	10.8872	0.06	3.34	3
295 Rice --> RICE/Jd10-2-3a-4515/0-8	22.9932	56.8173	0.34	17.42	4
296 Residential --> URBN/Jd10-2-3a-4515/25-45	0.0688	0.1701	0	0.05	5
297 Residential --> URBN/Jd10-2-3a-4515/0-8	39.3776	97.3039	0.58	29.83	6
298 Residential --> URBN/Jd10-2-3a-4515/8-15	32.872	81.2284	0.48	24.9	7
299 Residential --> URBN/Jd10-2-3a-4515/15-25	7.194	17.7767	0.11	5.45	8
300 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/8-15	0.0069	0.017	0	0.01	9
301 Agricultural Land-Generic --> AGRL/Jd10-2-3a-4515/0-8	0.0275	0.068	0	0.02	10
302 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/15-25	0.6471	1.5991	0.01	0.49	11
303 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/8-15	0.4888	1.2078	0.01	0.37	12
304 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/0-8	0.3236	0.7995	0	0.25	13
305 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/25-45	0.8468	2.0924	0.01	0.64	14
306 Agricultural Land-Row Crops --> AGRR/Jd10-2-3a-4515/45-9999	0.062	0.1531	0	0.05	15
307 Water --> WATR/Jd10-2-3a-4515/45-9999	0.1033	0.2552	0	0.08	16
308 Water --> WATR/Jd10-2-3a-4515/25-45	0.5094	1.2588	0.01	0.39	17
309 Water --> WATR/Jd10-2-3a-4515/15-25	1.1359	2.8068	0.02	0.86	18
310 Water --> WATR/Jd10-2-3a-4515/8-15	2.4301	6.0049	0.04	1.84	19
311 Water --> WATR/Jd10-2-3a-4515/0-8	2.3062	5.6987	0.03	1.75	20