



Western Riverside County Regional Conservation Authority

GIS Methodology, Process, and Procedures

May 8, 2009

Annual Report 2008

The process and procedure of compiling the development permit activities from the County and Cities by the RCA was further refined based on the RCA's experience in developing the 2004, 2005, 2006 and 2007 annual reports. Again in 2008 the RCA required that the Permittees submit the development related data on a quarterly basis. The final delivery of the development data from the Cities was completed in February 2009.

As in previous years the RCA focused its efforts on compiling grading permits (rough and precise), building permits for single family homes on an existing lot, single family homes in tracts, multiple family dwellings such as apartments and condos, mobile homes in single lots and commercial and industrial buildings as the appropriate categories for the reporting process. These permits and projects were acquired from the Cities and County in either an electronic format (GIS ESRI Shape files or Excel Spreadsheets). The permit or project data was either linked, geo-coded, or manually identified to a parcel location on a GIS shape file to represent the area developed and shown as a loss for that permittee during the reporting period.

As in previous years the RCA noted that the Cities and County issue over the year batches of permits for larger developers of subdivisions. However due to the downturn in development activity instead of pulling 20 to 30 permits on a phase developers are now pulling only 2 to 4 permits at a time. This slowdown in building will impact the reporting process over many years by extending the period for which tracts will be built out.

Shortly after publication of the Annual Report 2006 in April of 2007 a review of the Rough Step Formula was performed. At that point it was determined that the Rough Step Formula as modified in 2004 did not correctly calculate a buffer for development within the Rough Step Areas. Further review found that the original formula adopted for the MSHCP also did not correctly calculate the buffer. A new formula was developed and along with other issues was handled with a Minor Amendment. However, discussions with the U.S. Fish and Wildlife as well as California Department of Fish and Game on the minor amendment continued through 2008. As of March 13, 2009 the Wildlife Agency's have not yet completed review or given final concurrence to the issues addressed in the Minor Amendment. The data and analysis of Rough Step for the Annual Report 2008 has been prepared based on the new Baseline Public Quasi Public Lands as well as the new rough step formula as outlined in the Minor Amendment 07-01 adopted by the RCA Board in November 2007 and finalized with this Annual Report.

Loss Reporting Information 2008

The permits and projects compiled from the County and Cities were combined into one shape file to represent the losses as reported in 2008.

WRC_Project_Losses_Reported_2008.shp

3527 records

7656.627 acres

This file reports the projects and permits issued by the Permittees during the year and applied to the criteria cells. Many of these permits and projects have been reported as a loss in a previous year.

WRC_Project_Losses_Reported_2008.shp

All permits and projects from the Permittees for 2008 were geocoded into the GIS to represent those projects that had permits issued and reported on during 2008.

WRC_Project_Losses_Reported_2008.shp

Permittee	Records	Total Acres	Acres Outside of Criteria Cells	Acres Inside of Criteria Cells
Banning	4	2.792	2.792	0.000
Beaumont	339	330.368	317.179	13.189
Calimesa	2	0.762	0.000	0.762
Canyon Lake	1	0.227	0.227	0.000
Corona	67	227.587	191.462	36.125
County	2130	5097.089	4270.523	826.566
Hemet	202	382.492	372.755	9.738
Lake Elsinore	171	629.093	344.630	284.463
Moreno Valley	13	31.943	31.943	0.000
Murrieta	56	128.808	94.443	34.366
Norco	13	20.123	20.123	0.000
Perris	178	384.064	384.064	0.000
Riverside	97	219.351	219.048	0.303
San Jacinto	24	10.761	8.925	1.836
Temecula	230	191.167	104.503	86.665
Totals	3527	7656.627	6362.616	1294.012
Percent of Total			83.10%	16.90%

Five cities (Banning, Canyon Lake, Moreno Valley, Norco and Perris) did not have any permits/projects within cell areas.

Project Losses Correction Files for 2004, 2005, 2006 and 2007.

Losses correction files for 2004, 2005 and 2006 had been already prepared for the previous years while preparing the Annual Reports for 2005, 2006 and 2007. A new file for corrections to 2007 losses needed to be created. The original loss file WRC_Project_Losses_2007.shp file was used to create the file for the corrected loss file for 2007 (WRC_Project_Losses_Corrected_2007.shp) a corresponding Word Document WRC_Project_Losses_Corrected_2007.doc was created to document all changes and modifications.

In 2007 the County GIS acquired new Aerial Orthophotos that were flown in March of 2007. These provided an additional reference to the actual disturbance areas of projects that were reported as losses in 2004, 2005 and 2006. Further review of records from those years occurred as part of the data assembly process for 2008.

Projects and permits that were reported as losses in 2004, 2005 and 2006 were again reviewed on a case by case basis with the Aerial Orthophotos from 2007. In many cases additional research of record maps was performed. A small number of records reviewed indicated that they were actually for projects that were located on different parcels than originally identified. Modifications were made and documented in the Word Document Files for each year.

WRC_Project_Losses_Corrected_2004.shp	2765 records	16282.693 acres
WRC_Project_Losses_Corrected_2005.shp	5663 records	18975.738 acres
WRC_Project_Losses_Corrected_2006.shp	4048 records	11642.811 acres
WRC_Project_Losses_Corrected_2007.shp	2947 records	8007.664 acres

Changes to records in the Losses file are noted within the metadata for the shape file with a word document "WRC_Project_Losses_Corrected_2004 ,2005 2006 or 2007.doc". Changes to records as also noted in the field (Notes) when appropriate. The project as originally reported and as modified can be viewed in the Word Document for each modification.

The file used for the Annual Report 2007 (WRC_RCA_AR_Project_Losses.shp) was copied to a new file WRC_RCA_AR2007_Project_Losses.shp

WRC_RCA_AR2007_Project_Losses.shp	15457 records	55560.800 acres
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A new AR_Temp1.shp file was established with zero records and was opened for editing and all records from WRC_Project_Losses_Corrected_2004.shp were added to the file and it then had a total of 2765 records.

The AR_Temp1.shp was then used as an erase file to verify that records in WRC_Project_Losses_Corrected_2005.shp had not been reported on in 2004. This created a file AR_TEMP2_2005.shp with 5660 records. Area and acreage was recalculated.

The AR_Temp1.shp records were saved to a new file AR_Temp3.shp and opened for editing. The records from AR_TEMP2_2005.shp were then saved to that file. New record count was then 8425 records.

The AR_Temp3.shp was then used as an erase file to verify that records in WRC_Project_Losses_Corrected_2006.shp had not been reported on in 2004 or 2005.

This created a file AR_TEMP4_2006.shp with 4032 records. Area and acreage was then recalculated

The AR_Temp3.shp records were saved to a new file AR_Temp5.shp and opened for editing. The records from AR_Temp4_2006.shp were then saved to that file. New record count was then 12457 records.

The AR_Temp5.shp was then used as an erase file to verify that records in WRC_Project_Losses_Corrected_2007.shp had not been reported on in 2004, 2005 or 2006. This created a file AR_TEMP6_2007.shp with 2944 records. Area and acreage was then recalculated

The AR_Temp5.shp records were saved to a new file AR_Temp7.shp and opened for editing. The records from AR_Temp6_2007.shp were then saved to that file. New record count was then 15401 records.

AR_Temp7.shp 15401 records 54856.848 acres

A number of records within the file had an area less than 43.6 square feet or .001 acres all records larger than this were selected and saved to a new file AR_Temp8.shp

AR_Temp8.shp 15288 records 54856.689 acres

WRC_Project_Losses_2008.shp

The final Loss file for the 2008 permits and projects was created through the process of removing all projects and permit polygons that had been reported in 2004, 2005, 2006 or 2007 as a loss to the MSHCP

The AR_Temp8.shp file with 15288 records was then used as an erase file to remove all records reported in previous year to the WRC_Project_Losses_Reported_2008.shp file and create the WRC_Project_Losses_2008.shp file. All records less than 43.6 square feet were deleted from the file.

WRC_Project_Losses_2008.shp 1356 records 4013.961 acres

The following table summarizes by permittee those projects that are considered as new losses for the 2008 reporting period. Metadata was created for the shape file

WRC_Project_Losses_2008.shp

Permittee	Records	Total Acres	Acres Outside of Criteria Cells	Acres Inside of Criteria Cells
Banning	4	2.792	2.792	0.000
Beaumont	39	242.569	242.335	0.234
Calimesa	2	0.762	0.000	0.762
Canyon Lake	1	0.227	0.227	0.000
Corona	28	102.091	102.091	0.000
County	879	2851.310	2238.211	613.099

Lake Elsinore	82	90.777	40.604	50.173
Moreno Valley	13	29.599	29.599	0.000
Murrieta	34	70.634	38.440	32.194
Norco	8	15.859	15.859	0.000
Perris	38	188.181	188.181	0.000
Riverside	86	178.689	178.386	0.303
San Jacinto	4	3.010	3.010	0.000
Temecula	53	125.411	69.216	56.195
Totals	1356	4013.961	3251.263	762.698
Percent of Total			81.00%	19.00%

WRC_RCA_AR_Project_Losses.shp file.

The WRC_RCA_AR_Project_Losses.shp shape file was updated for 2008 by opening it for editing and then added the records from WRC_Project_Losses_2008.shp to the file.

The AR_Temp8.shp records were saved to a new file AR_Temp9.shp and opened for editing. The records from WRC_Project_Losses_2008.shp were then selected and saved to that file. New record count was then 16644 records. Final edits were made to several fields and the files was then save to the final cumulative annual report file.

WRC_RCA_AR_Project_Losses.shp		
16644 records	Total Acres	58,870.650 acres
	Acres in Cells	10,916.396 acres
	Acres outside of Cells	47,954.253 acres

Acquisitions Gains Reporting Information 2008

In late 2008 after the publication of the Annual Report additional property information on parcel size and boundaries concerning the Pico Thompson Ranch (Shelbran) acquisition Project ID 07-006 became available. Lot Lines had been adjusted as part of the acquisition and the new numbers represented a difference in acres and location. The resulting difference in parcel boundary location resulted in a net change of -7.963 acres for the acquisition. Both of the files: WRC_Acquisitions_Gains_2007.shp and WRC_RCA_AR_Acquisitions_Gains.shp that had records for Project ID 07-006 were edited. The existing records were removed from both files and replaced with a corrected set of records for that acquisition. A "Not a Part" record was also removed from the file.

WRC_Acquisitions_Gains_2007.shp (Prior to Edits)		
	261 Records	3,690.612 acres
WRC_Acquisitions_Gains_2007.shp		
	261 records	3682.649 acres
WRC_RCA_AR_Acquisitions_Gains.shp (Prior to Edits)		
	1510 records	35,934.469 acres
WRC_RCA_AR_Acquisitions_Gains.shp		
	1509 records	35,926.506 acres

The metadata for both files was updated to reflect the change in acres and modification of the records for the acquisition.

The acquisitions and gains records for 2008 were then compiled from the post acquisitions.mdb and the 2008-12-30-Conservation-Summary.xls spreadsheet. The records were unioned with both the Rough Step Boundaries and Criteria Cells to properly establish all attributes. Acreage was recalculated and verified. A total of 3 acquisitions had areas outside of the criteria cells for a total of 9.091 acres that do not count at this point towards the ARL. The Count4RS attribute for these portions were set to "No".

WRC_Acquisitions_Gains_2008.shp	175 records	4086.285 acres
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These records were then added to the WRC_RCA_AR_Acquisitions_Gains.shp file for developing the cumulative acquisitions and gains for the Annual Report.

The Acquisitions and Gains numbers were assembled during mid March of 2009. However, During April of 2009 in the final steps to complete Minor Amendment 2007-01 additional changes of status of ARL to PQP or PQP to ARL were made to various acquisitions prior to plan adoption in June of 2004. These modifications were fully described in the Minor Amendment 2007-01 that will be included as an appendix in the Annual Report for 2008. These changes resulted in acreage and status changes for ARL for the baseline acquisitions (WRC_Acquisitions_Gains_Prior_06222004.shp) as well as the (WRC_RCA_AR_Acquisitions_Gains.shp) for the annual report and required that the Acquisitions and Gains numbers for 2008 be re-calculated to account for these corrections.

Also in late April 2009, two acreage correction changes to several acquisitions from 2006 were discovered. The 06-017 Jalem Properties Acquisition correction resulted in a 3.63 acre loss to one of the parcels and the 06-009 Archer Acquisition correction resulted in a .77 acre increase and an overall net decrease in acreage by 2.86 acres. These modifications were made on May 7, 2009 to the following files.

WRC_Acquisitions_Gains_2006.shp (Prior to Edits)	343 Records	9,856.886 acres
WRC_Acquisitions_Gains_2006.shp	343 records	9,854.021 acres
WRC_RCA_AR_Acquisitions_Gains.shp (Prior to Edits)	1683 records	39,943.237 acres
WRC_RCA_AR_Acquisitions_Gains.shp	1683 records	39,940.372 acres

The metadata for the files was updated to reflect the change in acres and modification of the records for these acquisitions.

GIS Analysis Methodology

Rough Step Formula Calculations Data Files

To generate the rough step calculations for losses and gains on the MSHCP a series of seven ESRI shape files are required.

WRC_RCA_AR_Acquisitions_Gains.shp

(Acquisitions/Gains from 2000 to 12/31/2008)

WRC_RCA_AR_Project_Losses.shp

(Project and Permits losses 6/22/2004 to 12/31/2008)

WRC_MSHCP_Veg polygon coverage

Vegetation coverage used by MSHCP

TLMA.RoughStepUnits (SDE Layer)

Rough Step Areas as established by MSHCP

TLMA.AREAPLAN_BDY (SDE Layer)

Area Plan Boundaries as established by MSHCP

TLMA.AreaPlan_Subunits (SDE Layer)

Area Plan Sub-Unit Boundaries as established by MSHCP

TLMA.CITIES (SDE Layer)

City Boundaries as maintained by County GIS

Since the rough step formulas are based on cumulative numbers for both gains and losses it is necessary to generate statistics for all rough step areas, area plans, area plan subunits and jurisdictions.

GIS Shape Files – Gains

WRC_Acquisitions_Gains_Prior_06222004.shp

679 Records

Total Acres

16,943.545 acres

WRC_Acquisitions_Gains_2004.shp

85 Records

Total Acres

1,370.487 acres

WRC_Acquisitions_Gains_2005.shp

139 Records

Total Acres

4,003.384 acres

WRC_Acquisitions_Gains_2006.shp

343 records

Total Acres

9,854.021 acres

WRC_Acquisitions_Gains_2007.shp

261 Records

Total Acres

3,682.649 acres

WRC_Acquisitions_Gains_2008.shp

175 records

Total Acres

4,086.285 acres

WRC_RCA_AR_Acquisitions_Gains.shp
 1683 Records Total Acres 39,940.372 acres
 (records total includes 1 polygons for "Not a Part" for one acquisition in 2005)

Gains General Data and Numbers

The WRC_RCA_AR_Acquisitions_Gains.shp file (39,940.372 acres – 1683 records) includes the Rough Step numbers and Criteria cells so it was directly unioned with the vegetation wrc_mshcp_veg polygon to create a new shape file AR_Acq_Veg_Temp1.shp with a total of 21494 records. Those records representing a project with or without a vegetation category was then selected from the file and saved to a new shapefile AR_Acq_Veg_RS.shp with 4511 records. Three acquisitions had a small area outside of the boundary of the vegetation file and those records were corrected to note that they were "Unknown – Outside of Veg Layer". Fields and attributes not needed for reporting were removed. The records with a conservation type not equal to "Not a Part" were then selected. Acreage was recalculated to reflect vegetation classifications and double checked as 39940.372 acres for the 4511 records in the file.

Rough Step – Vegetation Gains

The attribute in the file Count4RS has four values, "Yes", to be counted towards Rough Step, "Potrero SKR Trade" that recognizes the March Air Reserve Base tradeout lands, "No" for those acquisitions outside of criteria cells and "Null" for Not a part lands.

The attribute for No (not to count for rough step) was selected and saved to a shape file AR_Acq_Veg_RS_not4RS.shp with 164 records and 729.324 acres.

The attribute for Potrero SKR Trade was selected and saved to a shape file AR_Acq_Veg_RS_Potrero.shp with 386 records and 2539.846 acres all within Rough Step Area Two (2).

The attribute for Yes (count for rough step) was selected and saved to a shape file AR_Acq_Veg_RS_Cells.shp with 3960 records and 36671.201 acres.

Acquisitions Not Counted for Rough Step.

The AR_Acq_Veg_RS_Not4RS.shp was also summarized by ProjectNam to indicate those properties or portions of properties acquired that could not be counted for Rough Step since they were outside of Criteria Cells.

Acquisitions and Gains - Not within Cells by Project name

Project Name	Records	Project ID	Date	Year	Acres
BAEZ	1	07-018	4/6/2007	2007	0.786
BETTS, KENNETH & HEIDI	1	07-042	12/28/2007	2007	0.146
BORCHARD, TR	1	07-020	4/30/2007	2007	0.653

CLARK	2	08-021	11/6/2008	2008	0.187
CLARK GIFT PROPERTY	4	05-018	7/11/2003	2005	0.419
CORDOVA	2	06-006	4/18/2006	2006	39.721
CORDOVA PHASE 2	2	06-003	2/8/2006	2006	163.621
EL SOL VINEYARD HILL DONATION	2	06-039	12/29/2006	2006	0.001
GOODHART	1	05-019	9/15/2005	2005	1.017
GRITTON	4	03-011	8/27/2003	Prior2Plan	1.491
JPR INC	5	03-012	9/12/2003	Prior2Plan	9.685
LAKE SKINNER INVESTORS	2	03-009	10/24/2002	Prior2Plan	0.026
LEDBETTER	7	05-008	2/17/2005	2005	3.432
MC ELHINNEY/STIMMEL	4	03-002	6/24/2002	Prior2Plan	2.056
MILLER/TURRELL (POWELL FINANCIAL)	1	08-009	3/28/2008	2008	1.155
NORTH PEAK # 4	7	04-005	6/28/2004	2004	0.723
NORTH PEAK #2	9	03-001	6/6/2003	Prior2Plan	3.627
NORTH PEAK #3	3	04-001	12/19/2003	Prior2Plan	0.044
OAK VALLEY PARTNERS	35	06-025	8/28/2006	2006	220.535
PALMYRITA DONATION (MMI/BDI)	7	08-027	12/5/2008	2008	7.748
PAUL	5	04-002	12/31/2003	Prior2Plan	0.964
PICO THOMPSON RANCH	1	07-004	2/15/2007	2007	0.309
PICO THOMPSON RANCH (SHELBRAN)	4	07-006	2/15/2007	2007	1.894
POTRERO/LOCKHEED	1	04-003	12/31/2003	Prior2Plan	0.764
RIVERSIDE CLARK	21	05-015	7/5/2005	2005	76.892
SAN JACINTO WILDLIFE AREA	11	03-004	11/19/2001	Prior2Plan	24.476
SAN TIMOTEO CYN BADLANDS	4	05-016	7/15/2002	2005	3.431
SCHMELING	6	03-008	10/10/2002	Prior2Plan	2.243
SSR INV CO	4	06-037	12/21/2006	2006	156.629
TAX SALE #5	2	05-011	4/28/2005	2005	4.356
TRI VALLEY	1	05-002	12/30/2004	2004	0.255
WHITE ROCK #1	3	03-021	11/5/2003	Prior2Plan	0.034
WHITE ROCK #2	1	03-023	12/5/2003	Prior2Plan	0.001
Totals	164				729.324

Acquisitions Identified as Potrero Tradeout.

The March Air Reserve Base – Potrero Tradeout lands are identified by acreage and vegetation types within Rough Step 2 and are not used to calculate Rough Step.

Acquisitions and Gains - MARB SKR Tradeout Lands

Vegetation Category	Records	Acres
Chaparral	143	687.381
Coastal Sage Scrub	59	327.932
Developed or Disturbed Land	9	11.001
Grassland	132	1432.208
Riparian Scrub, Woodland, Forest	20	21.292
Riversidean Alluvial Fan Sage Scrub	22	57.956
Woodlands and Forests	1	2.077
Total	386	2539.846

Acquisitions Identified as Counting for Rough Step.

The remaining records within AR_Acq_Veg_RS_Cells.shp with 3960 records and 36671.201 acres was then broken up into separate Rough Step Reporting files. For each StepNum (1 through 9) the appropriate records were selected and saved to a separate file (AR_Acq_Veg_RSX.shp (X=1 to 9))

AR_Acq_Veg_RS1	14 records	157.519 acres
AR_Acq_Veg_RS2	1424 records	12727.993 acres
AR_Acq_Veg_RS3	375 records	3149.560 acres
AR_Acq_Veg_RS4	1221 records	13884.841 acres
AR_Acq_Veg_RS5	62 records	375.326 acres
AR_Acq_Veg_RS6	302 records	2673.583 acres
AR_Acq_Veg_RS7	296 records	1185.279 acres
AR_Acq_Veg_RS8	263 records	2515.554 acres
AR_Acq_Veg_RS9	3 records	1.548 acres
Totals	3924 records	36671.201 acres

For rough step reporting the vegetation category or attribute of (FIRST_CATE) is used to report the vegetation gains. For each file the attribute table was opened and the records were summarized by FIRST_CATE and placed in a AA_Sum_Veg_RSX.dbf (X=1 to 9) and then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls)

For rough step reporting on acquisitions and gains for 2008 the vegetation category or attribute of (FIRST_CATE) is used to report the vegetation gains. For each file the attribute table was opened and the Year field was used to select the records from 2008. The records were then summarized by FIRST_CATE and placed in a dbf file or AA_Sum_Veg_RSX_2008.dbf (X=2 to 8) and then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls) It should be noted that there were no records for Rough Step 1 or Rough Step 9 and those files were not created for 2008.

Acquisitions - Conservation By Area Plan and AP – Sub Units

Conservation by Area Plan and Area Plan – SubUnits considers all of the acquisitions made within the Plan Areas within the Criteria Cells. The Potrero – March ARB tradeout lands as well as the Lands outside of criteria cells are analyzed as separate totals.

Three separate files were created from the WRC_RCA_AR_Acquisitions_Gains.shp file.

AR_Acq_4RS.shp	1447 records	36,671.201 acres
AR_Acq_Potrero.shp	159 records	2,539.846 acres
AR_Acq_not4RS.shp	76 records	729.324 acres

The AR_Acq_4RS.shp file was then unioned against the TLMA.AreaPlan_Boundaries.sde file to create AR_Acq_4RS_AP_temp1.shp. Those records with an acquisition/gain were then selected and saved to a new file AR_Acq_4RS_AP.shp. Two small area records that overlapped outside the boundary of the area plan (Southwest Area) were corrected for AP Name. Fields not needed for reporting were then removed from the file. Acreage was not recalculated at this point.

Acquisitions within Criteria Cells

The AR_Acq_4RS_AP.shp file was then unioned with the TLMA.AreaPlan_Subunits sde layer to create AR_Acq_4RS_AP_Temp1.shp. The records with a acquisition were then selected and saved to a new file AR_Acq_4RS_AP_Sub.shp. Two small area records that overlapped outside the boundary of the area plan and subunits were corrected for subunit name. Fields not needed for reporting were then removed from the file. Acreage was then recalculated on those gains and acquisitions by area plan and subunits. Those records for 2008 were saved to a separate file.

AR_Acq_4RS_AP_Sub.shp	1519 records	36671.201 acres
AR_Acq_4RS_AP_Sub_2008.shp	177 records	4077.194 acres

The next step was to summarize on the “Name” field representing the Area Plan Name for each of the two files to create two dbf files with the acreage totals for each area plan.

AAA_Sum_AP_4RS.dbf
AAA_Sum_AP_4RS_2008.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

It was then necessary to develop and create a series of files for each Area Plan that would then be summarized on the Subunit” field that represents the particular SubUnit of the Area Plan. This process was used on the two files by first selecting all records using the “Name” field for the Area Plan. Then those selected records were summarized using the Subunit field and saved to a dbf file that then had the acreage totals for each sub unit of the Area Plan. If records were present for 2008 then the process was repeated only for those records.

AAA_Sum_AP_4RS_Elsinore.dbf
AAA_Sum_AP_4RS_Elsinore_2008.dbf
AAA_Sum_AP_4RS_Highgrove.dbf

AAA_Sum_AP_4RS_Highgrove_2008.dbf
 AAA_Sum_AP_4RS_Jurupa.dbf
 AAA_Sum_AP_4RS_LakeMathewsWoodcrest.dbf
 AAA_Sum_AP_4RS_LakeMathewsWoodcrest_2008.dbf
 AAA_Sum_AP_4RS_LakeviewNuevo.dbf
 AAA_Sum_AP_4RS_LakeviewNuevo_2008.dbf
 AAA_Sum_AP_4RS_MeadValley.dbf
 AAA_Sum_AP_4RS_REMAP.dbf
 AAA_Sum_AP_4RS_REMAP_2008.dbf
 AAA_Sum_AP_4RS_RecheCanyonBadlands.dbf
 AAA_Sum_AP_4RS_SanJacintoValley.dbf
 AAA_Sum_AP_4RS_SanJacintoValley_2008.dbf
 AAA_Sum_AP_4RS_SouthwestArea.dbf
 AAA_Sum_AP_4RS_SouthwestArea_2008.dbf
 AAA_Sum_AP_4RS_SunCityMenifee.dbf
 AAA_Sum_AP_4RS_TemescalCanyon.dbf
 AAA_Sum_AP_4RS_TemescalCanyon_2008.dbf
 AAA_Sum_AP_4RS_ThePass.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

Acquisitions within Potrero

The AR_Acq_Potrero.shp file was then unioned against the TLMA.AreaPlan_Boundaries sde file to create AR_Acq_Potrero_AP_temp1.shp. Those records with an acquisition/gain were then selected and saved to a new file AR_Acq_Potrero_AP.shp. Fields not needed for reporting were then removed from the file. Acreage was recalculated at this point.

The AR_Acq_Potrero_AP.shp file was then unioned with the TLMA.AreaPlan_Subunits sde layer to create AR_Acq_Potrero_AP_Sub_Temp1.shp. The records with a acquisition were then selected and saved to a new file AR_Acq_Potrero_AP_Sub.shp. Fields not needed for reporting were then removed from the file. Acreage was then recalculated on those gains and acquisitions by area plan and subunits.

AR_Acq_Potrero_AP_Sub.shp	164 records	2539.846 acres
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The next step was to summarize on the "Name" field representing the Area Plan Name for the file to create a dbf files with the acreage totals for each area plan.

AAAG_Sum_AP_Potrero.dbf

This file for the acquisitions detailed as SKR Tradeout were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

It was then necessary to create two files for the Area Plan that would then be summarized on the Subunit" field that represents the particular SubUnit of the Area Plan. This process was used on file by first selecting all records using the "Name" field for the Area Plan. Then those selected records were summarized using the Subunit field and saved to a dbf file that then had the acreage totals for each sub unit of the Area Plan.

AAA_Sum_AP_Potrero_SanJacinto.dbf

AAA_Sum_AP_Potrero_ThePass.dbf

These files for the Potrero MARB SKR Tradeout were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

Acquisitions outside of Criteria Cells

The AR_Acq_not4RS.shp file was then unioned against the TLMA.AreaPlan_Boundaries sde file to create AR_Acq_not4RS_AP_temp1.shp. Those records with a acquisition/gain were then selected and saved to a new file AR_Acq_not4RS_AP.shp. Fields not needed for reporting were then removed from the file. Acreage was not recalculated at this point.

The AR_Acq_not4RS_AP.shp file was then unioned with the TLMA.AreaPlan_Subunits sde layer to create AR_Acq_not4RS_AP_Temp1.shp. The records with a acquisition were then selected and saved to a new file AR_Acq_not4RS_AP_Sub.shp. Fields not needed for reporting were then removed from the file. Acreage was then recalculated on those gains and acquisitions by area plan and subunits. Those records for 2008 were saved to a separate file.

AR_Acq_Not4RS_AP_Sub.shp	78 records	729.324 acres
AR_Acq_Not4RS_AP_Sub_2008.shp	4 records	9.091 acres

The next step was to summarize on the "Name" field representing the Area Plan Name for each of the two files to create two dbf files with the acreage totals for each area plan.

AAA_Sum_AP_not4RS.dbf
AAA_Sum_AP_not4RS_2008.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

It was then necessary to develop and create a series of files for each Area Plan that would then be summarized on the Subunit" field that represents the particular SubUnit of the Area Plan. This process was used on the two files by first selecting all records using the "Name" field for the Area Plan. Then those selected records were summarized using the Subunit field and saved to a dbf file that then had the acreage totals for each sub unit of the Area Plan. If records were present for 2008 then the process was repeated only for those records.

AAA_Sum_AP_not4RS_Elsinore.dbf
AAA_Sum_AP_not4RS_Elsinore_2008.dbf
AAA_Sum_AP_not4RS_Highgrove.dbf
AAA_Sum_AP_not4RS_Highgrove_2008.dbf
AAA_Sum_AP_not4RS_LakeMathewsWoodcrest.dbf
AAA_Sum_AP_not4RS_REMAP.dbf
AAA_Sum_AP_not4RS_REMAP_2008.dbf
AAA_Sum_AP_not4RS_RecheCanyonBadlands.dbf
AAA_Sum_AP_not4RS_SanJacintoValley.dbf
AAA_Sum_AP_not4RS_SouthwestArea.dbf
AAA_Sum_AP_not4RS_SunCityMenifee.dbf

AAA_Sum_AP_not4RS_ThePass.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

Acquisitions - Conservation By Jurisdiction

Conservation by Jurisdiction considers all of the acquisitions made within the Plan Areas within the Criteria Cells. The Potrero – March ARB tradeout lands as well as the Lands outside of criteria cells are analyzed as separate totals for the Jurisdictions.

The WRC_RCA_AR_Acquisitions_Gains.shp file was unioned against the TLMA.Cities sde file to create AR_Acq_Jurisdictions_temp1.shp. All records that had an acquisition were selected and saved to a new file AR_Acq_Jurisdictions.shp. All records were selected except those that were “Not a Part” and acreage and area was recalculated. All records that did not have a city name were selected and the value of “County” was calculated into the “Cityname” field. Several fields not needed were then dropped from the file. Acreage value was checked.

AR_Acq_Jurisdictions.shp	1745 records	39940.372 acres
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The file was then summarized by Cityname and saved to a dbf files. This process was completed for 2008 records as well.

A1_Sum_Jurisdictions.dbf
A1_Sum_Jurisdictions_2008.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

For the Conservation by Jurisdiction the three separate files that were created from the AR_Acq_Jurisdictions.shp file was then used to create three files.

AR_Acq_4RS_Juris.shp	1499 records	36,671.201 acres
AR_Acq_Potrero_Juris.shp	161 records	2,539.846 acres
AR_Acq_not4RS_Juris.shp	84 records	729.324 acres

Conservation by Jurisdiction for Areas in Criteria Cells

The AR_Acq_Juris_4RS.shp file was then summarized on the “Cityname” field representing the Jurisdiction for and saved to a dbf file. The process was repeated for records for 2008.

AA1_Sum_Juris_4RS.dbf
AA1_Sum_Juris_4RS_2008.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

Conservation by Jurisdiction for Potrero

The AR_Acq_Juris_Potrero.shp file was then summarized on the "Cityname" field representing the Jurisdiction for and saved to a dbf file. Since the Potrero acquisition was prior to the plan records will not exist for 2008

AA1_Sum_Juris_Potrero.dbf

The file for the Potrero acquisitions – MARB SKR Tradeout was then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

Conservation by Jurisdiction for areas not in Criteria Cells

The AR_Acq_Juris_not4RS.shp file was then summarized on the "Cityname" field representing the Jurisdiction for and saved to a dbf file. The process was repeated for records for 2008.

AA1_Sum_Juris_Not4RS.dbf
AA1_Sum_Juris_Not4RS_2008.dbf

These files for the plan to date as well as acquisitions for 2008 were then imported into the Excel reporting spreadsheet (Acquisitions_Losses_Annual_Report_2008.xls).

GIS Shape Files - Losses

WRC_Project_Losses_2004.shp			
2849 Records	Total Acres		18,036.961 acres
	Acres in Cells		3,835.450 acres
	Acres outside of Cells		14,201.510 acres
WRC_Project_Losses_Corrected_2004.shp			
2765 Records	Total Acres		16,282.693 acres
	Acres in Cells		3,022.037 acres
	Acres outside of Cells		13,260.656 acres
WRC_Project_Losses_Reported_2005.shp			
7599 Records	Total Acres		26,724.300 acres
	Acres in Cells		4,750.343 acres
	Acres outside of Cells		21,973.957 acres
WRC_Project_Losses_2005.shp			
5671 Records	Total Acres		19,084.648 acres
	Acres in Cells		3,472.322 acres
	Acres outside of Cells		15,612.327 acres
WRC_Project_Losses_Corrected_2005.shp			
5663 Records	Total Acres		18,975.738 acres
	Acres in Cells		3,383.792 acres
	Acres outside of Cells		15,591.946 acres
WRC_Project_Losses_Reported_2006.shp			
6527 Records	Total Acres		21,339.379 acres
	Acres in Cells		3,984.341 acres

	Acres outside of Cells	17,355.038 acres
WRC_Project_Losses_2006.shp		
4051 Records	Total Acres	11,911.052 acres
	Acres in Cells	2,573.590 acres
	Acres outside of Cells	9,337.462 acres
WRC_Project_Losses_Corrected_2006.shp		
4048 Records	Total Acres	11,642.811 acres
	Acres in Cells	2,504.878 acres
	Acres outside of Cells	9,137.933 acres
WRC_Project_Losses_Reported_2007.shp		
6102 Records	Total Acres	15,231.223 acres
	Acres in Cells	2,567.366 acres
	Acres outside of Cells	12,663.857 acres
WRC_Project_Losses_2007.shp		
3035 Records	Total Acres	8,037.508 acres
	Acres in Cells	1,286.174 acres
	Acres outside of Cells	6,751.334 acres
WR_Project_Losses_Corrected_2007.shp		
2947 Records	Total Acres	8,007.664 acres
	Acres in Cells	1,292.353 acres
	Acres outside of Cells	6,715.311 acres
WR_Project_Losses_Reported_2008.shp		
3527 Records	Total Acres	7,656.627 acres
	Acres in Cells	1,294.012 acres
	Acres outside of Cells	6,362.616 acres
WR_Project_Losses_2008.shp		
1356 Records	Total Acres	4,013.961 acres
	Acres in Cells	762.698 acres
	Acres outside of Cells	3,251.263 acres
WRC_RCA_AR_Project_Losses.shp		
16644 Records	Total Acres	58,870.650 acres
	Acres in Cells	10,916.396 acres
	Acres outside of Cells	47,954.253 acres

Losses General Data and Numbers

The WRC_RCA_AR_Project_Losses.shp file (58870.650 acres - 16644 records) was first unioned with the Rough Step Boundaries to create AR_Loss_RS_temp1.shp with 16768 records. All records that had a "Loss" component were selected and then saved to a new shapefile AR_Losse_RS.shp with 16756 records. Several fields not needed were then dropped from the file. Area and acres were then recalculated and double checked as 58870.650 acres for the 16756 records.

Then the AR_Loss_RS.shp was unioned with the vegetation wrc_mshcp_veg polygon to create a new shape file AR_Losses_RS_Veg_temp1.shp with a total of 17296 records. Those records that representing a project with vegetation categories were then selected and saved to a new shape file AR_Loss_RS_Veg.shp with 24619 records.

Total area and acreage was recalculated verified as 58870.650 acres and it was noticed that Fifteen (15) loss records had very small areas outside of the boundary of the vegetation file and vegetation values for these areas could not be applied. Vegetation Categories for these records were set to “Unknown – Outside of Veg Layer”. The total acreage of these lands was .963 acres. Fields and attributes not needed for reporting were then removed from the shape file. Acres in and out were also reset leaving 47954.254 acres outside of criteria cells and 10916.396 acres inside of cells.

The acreage by Rough Step was then summarized and placed into a dbf file AR_Sum_RS.dbf as well as for the 2008 records which were saved into AR_SUM_RS_2008.dbf and both were imported into the Acquisitions_Losses_Annual_Report_2008.xls spreadsheet.

The acreage by Vegetation Category (First_Cate) was then summarized and placed into a dbf file AR_Sum_Veg.dbf as well as for the 2008 records which were saved into AR_SUM_Veg_2008.dbf and both were then imported into the Acquisitions_losses_Annual_Report_2008.xls spreadsheet.

Rough Step – Vegetation Losses

The AR_Loss_RS_Veg.shp file was then broken up into separate Rough Step reporting files. For each StepNum (1 through 9) the appropriate records for the rough step were selected and then saved to a separate file (AR_Loss_RS_Veg_X.shp (X=1 to 9)).

AR_Loss_RS_Veg_1	2678 records	5446.331 acres
AR_Loss_RS_Veg_2	2440 records	6110.622 acres
AR_Loss_RS_Veg_3	3199 records	11348.827 acres
AR_Loss_RS_Veg_4	2790 records	7556.413 acres
AR_Loss_RS_Veg_5	3863 records	7704.798 acres
AR_Loss_RS_Veg_6	2908 records	7863.396 acres
AR_Loss_RS_Veg_7	4351 records	6946.044 acres
AR_Loss_RS_Veg_8	1742 records	4844.915 acres
AR_Loss_RS_Veg_9	648 records	1049.306 acres
Totals	24619 records	55870.650 acres

For rough step reporting the vegetation category or attribute of (FIRST_CATE) is used to report the vegetation losses. For each file the attribute table was opened and the records were summarized by FIRST_CATE and placed in a AAR_Sum_RSX.dbf (X=1 to 9) and then all dbf files were imported into the Excel reporting spreadsheet Acquisitions_Losses_Annual_Report_2008.xls.

For rough step reporting on the vegetation losses for 2008 the vegetation category or attribute of (First_Cate) is used to report the vegetation losses. Each Loss file AR_Losses_RS_Veg_X (X = 1 to 9).shp was opened and the YearReport attribute was selected for 2008. The records were then summarized by First_Cate and placed in a dbf file AAR2008_Sum_RSX_2008.shp (X=1 to 9) and then all dbf files were imported into the Excel reporting spreadsheet Acquisitions_Losses_Annual_Report_2008.xls.

Area Plan Losses

The WRC_RCA_AR_Project_Losses.shp file was then unioned against the TLMA.AreaPlan_Bdy sde file to create AR_Losses_AP_Temp1.shp. This file contained 16903 records. Those records with a project/loss information were then selected and placed in a new file AR_Loss_AP.shp with 16879 records. A total of 14 records that did not have area plan information were selected and “Unknown” was calculated into the Area Plan Name. Fields not needed for the next step were removed. Acreage was recalculated and verified as 58870.649 acres.

The next step was to summarize the losses in the Area Plans. The NAME field representing the area plan was used to summarize and report on the total acreage losses and losses in and outside the criteria cells for the Area Plans results were saved to a dbf file AA_Sum_Loss_AP.dbf. This procedure was also followed for the 2007 records by selecting the Yearreport field to 2008 and then summarizing again on Area Plan and saving the results to the AA_Sum_Loss_AP2008.dbf. Then both dbf files were imported into the Excel reporting spreadsheet Acquisitions_Losses_Annual_Report_2008.xls.

Area Plan SubUnit Losses

The AR_Loss_AP.shp file with 16,879 records was then unioned with the TLMA.AreaPlan_Subunits sde layer to create AR_Loss_AP_SUB_Temp1.shp creating a file with 17033 records. Those records with a project/loss information were then selected and placed in a new file AR_Loss_AP_Sub.shp with 16884 records. A total of 14 records that did not have area plan sub unit information were selected and “Unknown” was calculated into the Area Plan Name and “Not a Part” was calculated into the SubUnit field. Fields not needed for the next step were removed. Acreage was recalculated and verified as 58870.650 acres.

For reporting the Permit/Projects losses by subunit first the Area Plan attribute was selected for the particular Area Plan then the attribute of (Subunit) representing the subunits were used to summarize the records. The results were then saved to a dbf file for the Area Plan and Subunit. Next the Area Plan was selected along with the Yearreport attribute set to 2008. The attribute for the subunit was then used to summarize the records for 2008. The results were then saved to a dbf file to represent the 2008 records.

- AA_Sum_Loss_APsub-Riverside-Norco.dbf
- AA_Sum_Loss_APsub-Riverside-Norco-2008.dbf
- AA_Sum_Loss_APsub-Eastvale.dbf
- AA_Sum_Loss_APsub-Eastvale-2008.dbf
- AA_Sum_Loss_APsub-Elsinore.dbf
- AA_Sum_Loss_APsub-Elsinore-2008.dbf
- AA_Sum_Loss_APsub-Harvest-Winchester.dbf
- AA_Sum_Loss_APsub-Harvest-Winchester-2008.dbf
- AA_Sum_Loss_APsub-Highgrove.dbf
- AA_Sum_Loss_APsub-Highgrove-2008.dbf
- AA_Sum_Loss_APsub-Jurupa.dbf
- AA_Sum_Loss_APsub-Jurupa-2008.dbf

AA_Sum_Loss_APsub-LakeMathews-Woodcrest.dbf
 AA_Sum_Loss_APsub-LakeMathews-Woodcrest-2008.dbf
 AA_Sum_Loss_APsub-Lakeview-Nuevo.dbf
 AA_Sum_Loss_APsub-Lakeview-Nuevo-2008.dbf
 AA_Sum_Loss_APsub-March.dbf
 AA_Sum_Loss_APsub-March-2008.dbf
 AA_Sum_Loss_APsub-MeadValley.dbf
 AA_Sum_Loss_APsub-MeadValley-2008.dbf
 AA_Sum_Loss_APsub-REMAP.dbf
 AA_Sum_Loss_APsub-REMAP-2008.dbf
 AA_Sum_Loss_APsub-RecheCanyon-Badlands.dbf
 AA_Sum_Loss_APsub-RecheCanyon-Badlands-2008.dbf
 AA_Sum_Loss_APsub-SanJacinto.dbf
 AA_Sum_Loss_APsub-SanJacinto-2008.dbf
 AA_Sum_Loss_APsub-Southwest.dbf
 AA_Sum_Loss_APsub-Southwest-2008.dbf
 AA_Sum_Loss_APsub-Suncity-menifee.dbf
 AA_Sum_Loss_APsub-Suncity-menifee-2008.dbf
 AA_Sum_Loss_APsub-TemescalCanyon.dbf
 AA_Sum_Loss_APsub-TemescalCanyon-2008.dbf
 AA_Sum_Loss_APsub-ThePass.dbf
 AA_Sum_Loss_APsub-ThePass-2008.dbf
 AA_Sum_Loss_APsub-Unknown.dbf
 AA_Sum_Loss_APsub-Unknown-2008.dbf

All dbf files were imported into Acquisitions_Losses_Annual_Report_2008.xls the Excel reporting spreadsheet.

Losses by Jurisdiction

The WRC_RCA_AR_Project_Losses.shp file (58870.650 acres - 16644 records) has a field "Permittee" that indicates the Jurisdiction that had the loss. During 2008 two new cities were incorporated at two times during the year. The City of Menifee was incorporated on October 1, 2008 and the City of Wildomar was incorporated on July 1, 2008. After they formally incorporated the County continued to handle the permitting process for both Cities for much of the remainder of the year.

As of December 31, 2008 the Amendments to the JPA, Implementing Agreements and other actions and documents that formally add the Cities as Permittees to the MSHCP were in progress. Reporting on development activities within these cities will be included in the Annual Report 2009 when they become Permittees to the MSHCP.

This Permittee field was used to summarize the losses for Jurisdictions and was used to create the AA_Sum_Loss_Jurisdictions.dbf file.

Jurisdiction Losses

June 22, 2004 to December 31, 2008

Permittee	Records	Total Acres	Acres	Acres in CC
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Outside				
Banning	170	297.343	297.343	0.000
Beaumont	468	2652.905	2148.618	504.287
Calimesa	155	494.022	399.167	94.856
Canyon Lake	111	40.839	40.493	0.346
Corona	275	1425.212	1268.062	157.150
County **	10822	36715.588	29468.385	7247.203
Hemet	376	2595.183	2465.967	129.216
Lake Elsinore	552	2517.674	1307.374	1210.300
Moreno				
Valley	254	2637.108	2636.330	0.778
Murrieta	642	2323.844	1389.781	934.063
Norco	79	207.586	207.586	0.000
Perris	405	2083.304	1932.766	150.538
Riverside	1158	1906.237	1881.306	24.932
San Jacinto	313	1639.944	1487.197	152.747
Temecula	864	1333.861	1023.879	309.982
Totals	16644	58870.650	47954.254	10916.396

** Note: County data includes losses in the new Cities of Menifee and Wildomar

The same process was used to summarize the records from 2008 and they were placed in a dbf file AA_Sum_Loss_Jurisdictions-2008.dbf file.

**Jurisdiction Losses
January 1, 2008 to December 31, 2008**

Permittee	Records	Total Acres	Acres	
			Outside	Acres in CC
Banning	4	2.792	2.792	0.000
Beaumont	39	242.569	242.335	0.234
Calimesa	2	0.762	0.000	0.762
Canyon Lake	1	0.227	0.227	0.000
Corona	28	102.091	102.091	0.000
County **	879	2851.310	2238.211	613.099
Hemet	85	112.050	102.312	9.738
Lake Elsinore	82	90.777	40.604	50.173
Moreno				
Valley	13	29.599	29.599	0.000
Murrieta	34	70.634	38.440	32.194
Norco	8	15.859	15.859	0.000
Perris	38	188.181	188.181	0.000
Riverside	86	178.689	178.386	0.303
San Jacinto	4	3.010	3.010	0.000
Temecula	53	125.411	69.216	56.195
Totals	1356	4013.961	3251.263	762.698

**** Note: County data includes losses in the new Cities of Menifee and Wildomar**

No Reportable Permits/Projects for 2008 within Criteria Area for:

Banning Canyon Lake Corona Moreno Valley
 Norco Perris San Jacinto

Both dbf files were imported into Acquisitions_Losses_Annual_Report_2008.xls the Excel reporting spreadsheet.

Expedited Project Review (SFR-Mobiles in Criteria Cells)

From the AR_Loss_RS_Veg.shp shape file with 24619 records all records for the year of 2008 with a Review status of "ERP" were selected and placed in a new shape file AR_Losses_ERP_2008.shp with a total of 179 records consisting of 260.190 acres. EPR project information for 2008 was reported by the County and the City of Moreno Valley with no other ERP projects within the remaining Cities. Records from 2008 with a Review status of "Unknown" were selected and saved in AR_Losses_Unknown_2008.shp with a total of 95 records consisting of 235.561 acres. Records from 2008 with a Review status of "Vested" were selected and saved in AR_Losses_Vested_2008.shp with a total of 38 records consisting of 30.191 acres.

EPR Projects for 2008

In 2008 the County and City of Moreno Valley processed ERP projects. The projects/records within AR_Losses_EPR_2008.shp were then intersected using the Select by Location command with the Parcels layer as maintained by the County and were saved to a new file AR_EPR_Parcels_2008.shp. The AR_EPR_Parcels_2008.shp file and AR_Losses__EPR_2008.shp file were then unioned together to create a new file AR_EPR_Parcels_2008_Union.shp with 760.306 acres.

This file then had the entire parcel for the project identified. Those areas from the EPR project losses files had the project and vegetation type. Additional attributes were added to identify the status of the EPR project as either the Least Sensitive Area (disturbed area for building) or the No Disturbance areas. Attributes were added for the acreage of each of these types and acres and areas were recalculated. The dbf file was imported into the Acquisitions_Losses_Annual_Report_2008.xls Excel reporting spreadsheet.

EPR's Based on Full Parcels

PERMITTEE	Records	Least Sensitive Area	No Disturbance Area	Totals
2008	250	258.974 34.1%	500.116 65.9%	759.090 100.0%

The reporting information from the permittees that was available to the RCA indicates that the EPR Projects review process during 2008 designated 65.9% of the area within these projects as not to be disturbed.

Review of Gains and Losses on Delhi Sands Flower-Loving Fly Soils.

Within rough step 1 the RCA is required for the Annual Report to review and analyze the Delhi Fly soils within the rough step for gains and losses on the Delhi sand soils. The acquisitions that had already been clipped to Rough Step with the vegetation within the Rough Step were intersected with the GIS Delhi Sands Soils layer.

Gains of Delhi Sands Soils

The AR_Acq_Veg_RS1.shp (14 records, 157.519 acres) representing the Teledyne / Mira Loma acquisition (Prior to Plan) and City of Corona – Fresno Canyon easement (2006) was unioned with the TLMA.Delhi_Soils sde layer to create a new layer AR_Acq_Veg_RS1_Cells_Delhisoiils_Temp1.shp. All records with gains were then selected and saved to a new file AR_Acq_Veg_RS1_Cells_DeHiSoils.shp (17 records, 157.519 acres). The 3 records with Delhi Sand soils covering 6.794 acres of soils were then summarized and saved to a AA1_sum_AR_Delhisoiils.dbf and imported into the Acquisitions_Losses_Annual_Report_2008.xls spreadsheet. Essentially for 2008 there were no additional acquisitions that acquired Delhi sands soils within this Rough Step.

Losses of Delhi Sands Soils

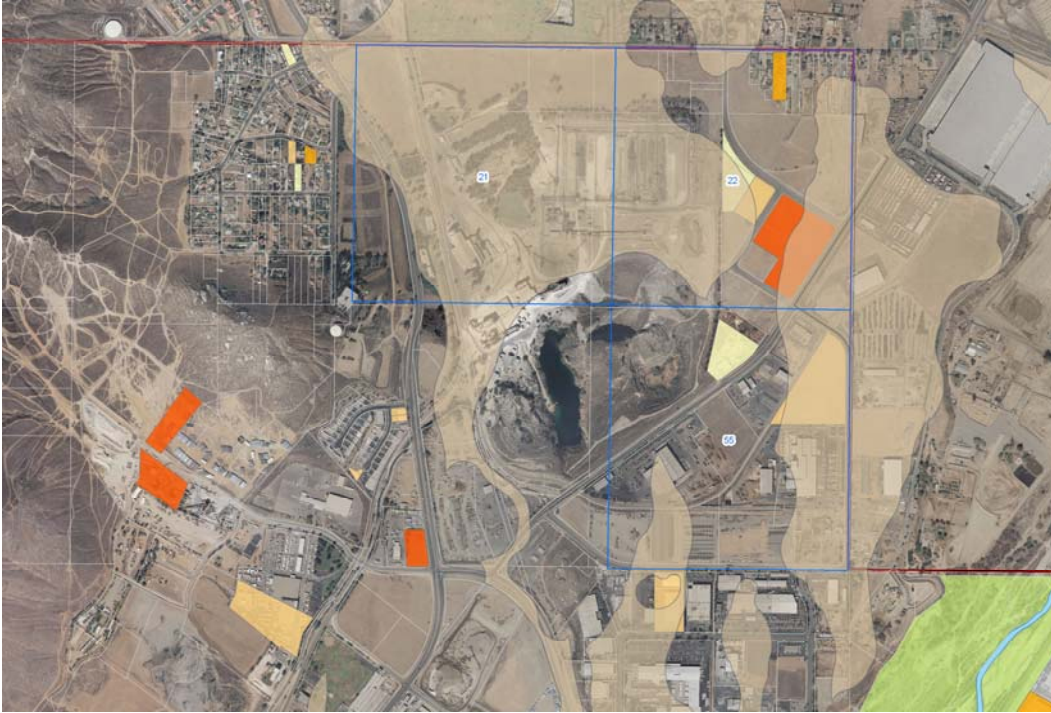
The losses within Rough Step 1 only need to be evaluated for the MSHCP Criteria Cells 21, 22 and 55. The AR_Losses_RS_Veg_1.shp file (2678 records - 5446.332 acres) was first unioned with the Delhi Sand Soils within the area to create a new shape file of AR_Loss_RS1_Dsoils_Temp1.shp with (2803 records). Records with projects were then selected and saved to a new file AR_Loss_Veg_RS1_Doils.shp with 2751 records. This file was then reselected for the Label attributes equal to 21, 22 and 55 to select the three cells needed for the report. These records were then saved to a new shape file AR_Loss_RS1_AR-Delhisoiils.shp (16 records representing 32.384 acres with 19.364 acres of Delhisoiils losses).

No new projects within these cells were reported for 2008 and the Delhi Sand Soils losses remain the same as reported in the last Annual Report.

Losses - Permits and Projects with Dehli Sand Soil for Losses (Annual Report Years 2004, 2005, 2006, 2007 and 2008)

Permit ID	Records	Year Reported	Soil Type	Fly Soils	Soil Acres
BGR041373	2	2004	DaD2	Y	2.4358
BNR040203	1	2005	DaD2	Y	1.1002
BNR040260	1	2005	DaD2	Y	9.6603
BGR060742	1	2007	DaD2	Y	6.1657
BNR060104	1	2007	DaD2	Y	0.0017
Totals	6				19.364

Projects in Dehli Sand Soil Cells – Habitat Loss – Cells 21, 22 and 55



Changes for Future Reporting Years

In 2009 the RCA will continue to require the reporting of Permits and Projects information from Permittees at the end of each quarter. The review of projects and permits from Reporting Years of 2004, 2005, 2006 and now 2007 will continue as time permits for preparation of the next Annual Reports. Projects will be reviewed against the latest Aerial Orthophotos available.

The efforts to assemble the data for 2008 continues the trend first observed in the previous efforts to obtain data for the Annual Reports. The development process occurs over an very extended period of time. The RCA continues to report on grading and building on projects that were approved prior to the approval of the MSHCP. Additionally since the permittees issue multiple grading and building permits on projects we are finding that a full 47% of the building and grading permits reported by the permittees during 2008 had already been counted as losses for 2004, 2005 and 2006 and 2007.