Coachella Valley Mosquito and Vector Control District Mobile Application

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Why did we need a mobile application cont. ?

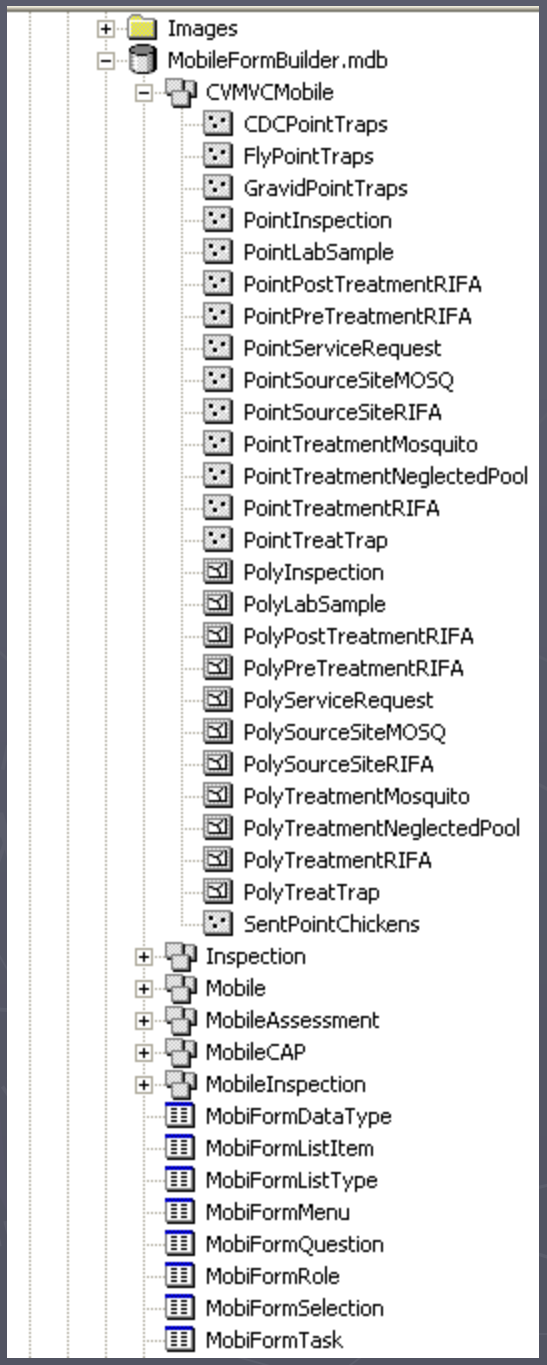
- Access treatment information in the field regardless of zone, city boundary or technician
- Develop a centralized repository for consistent data management
- Distribute employee knowledge across the organization
- Access, Sybase, Excel
- Redundant data entry
- Previous system not maintained
- Multiple databases in different formats

History Background

- Educate Board on the strengths of GIS
- Started talking about design in August 2008
- Purchased ArcGis Advanced Server 9.2
- First launch in February 2009 (testing)
- Loaded old database into mobile system for mosquito side of operations.
- Went paperless for mosquito in December 2009.
- Loaded all RIFA database into mobile system January 2010.
- Full production at present.

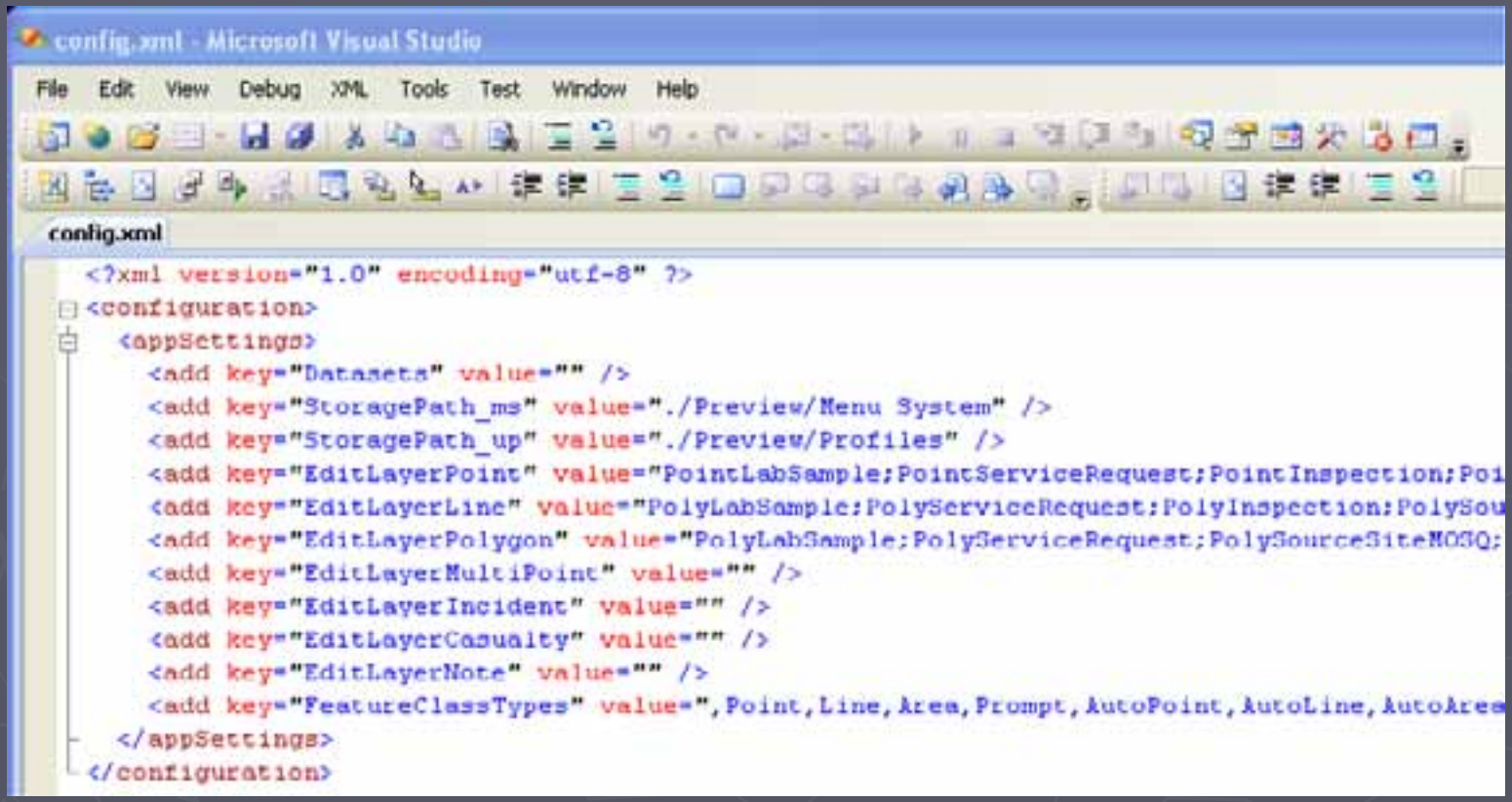
Parts of a Mobile Application

- Database to design forms
- Xml for configuration of settings and feature classes
- A form designer to put it all together
- A Mobile Storage and Delivery System
- You now have the field data now you need to report it.

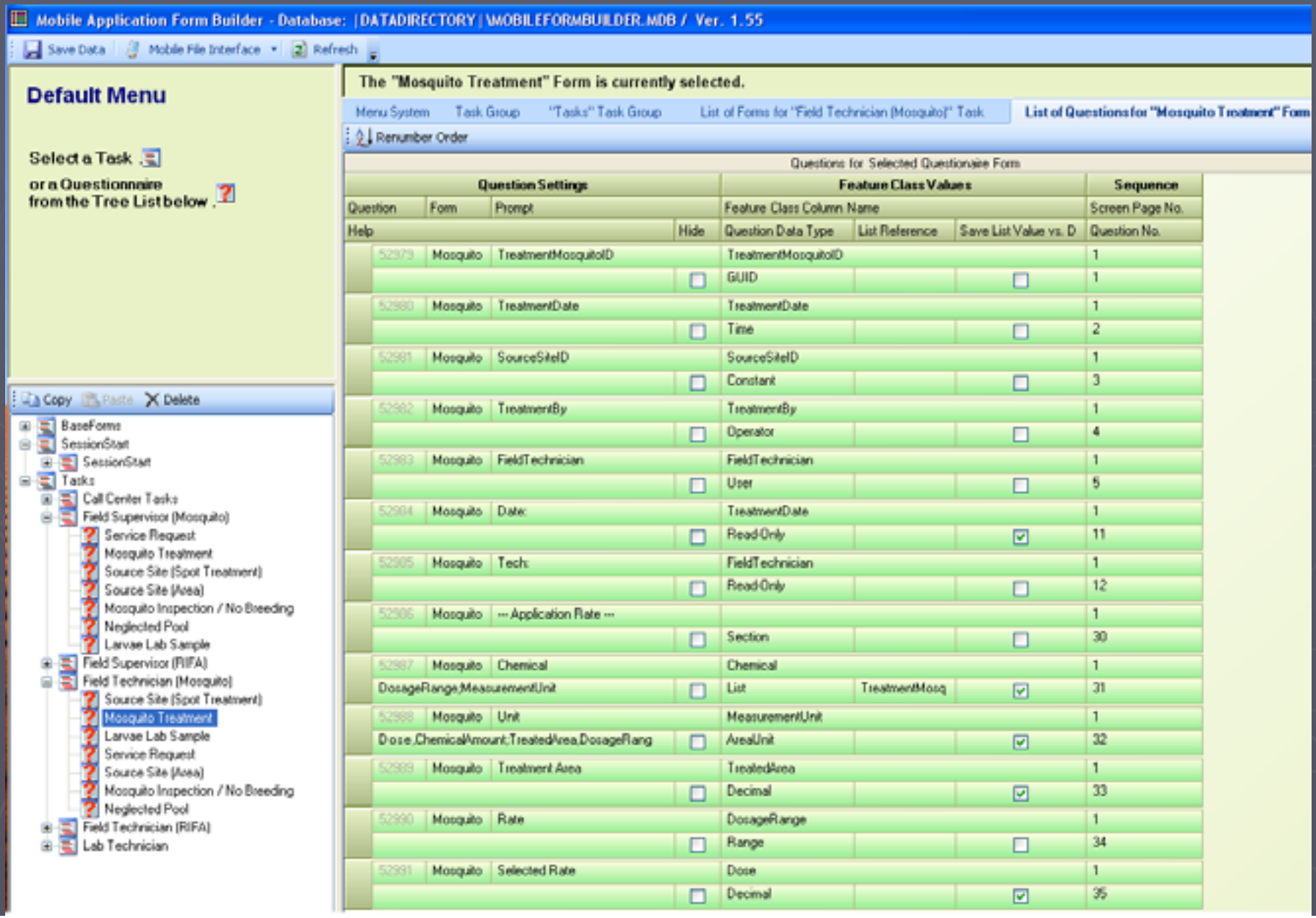


- Feature Classes for Reference Build Menu System

Config.xml for Design



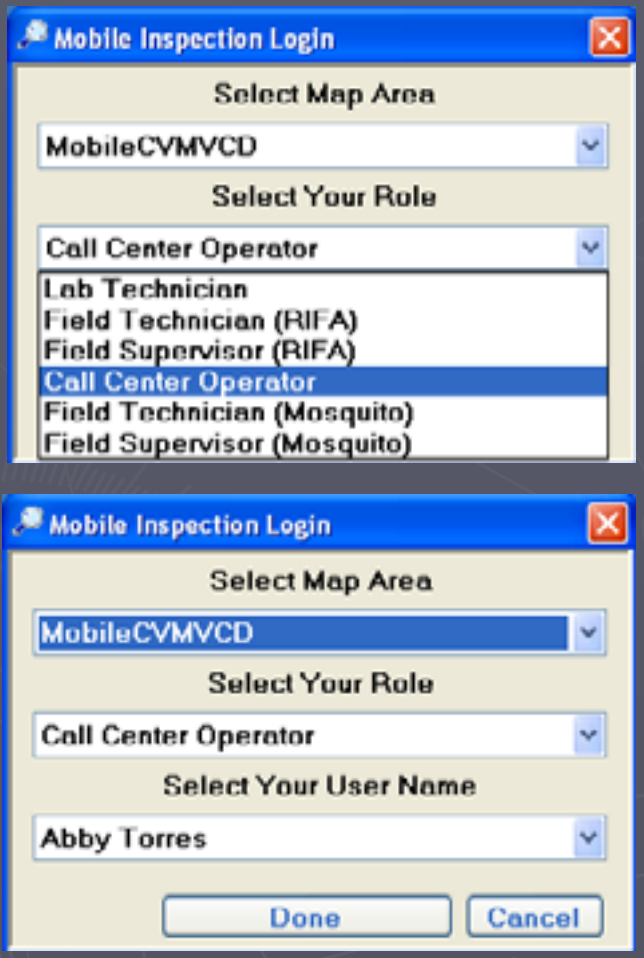
FORM BUILDER BUILDS QUESTIONS



Mobile Device

Panasonic CF-30 Integrated Wireless Card/GPS ; Docking Station

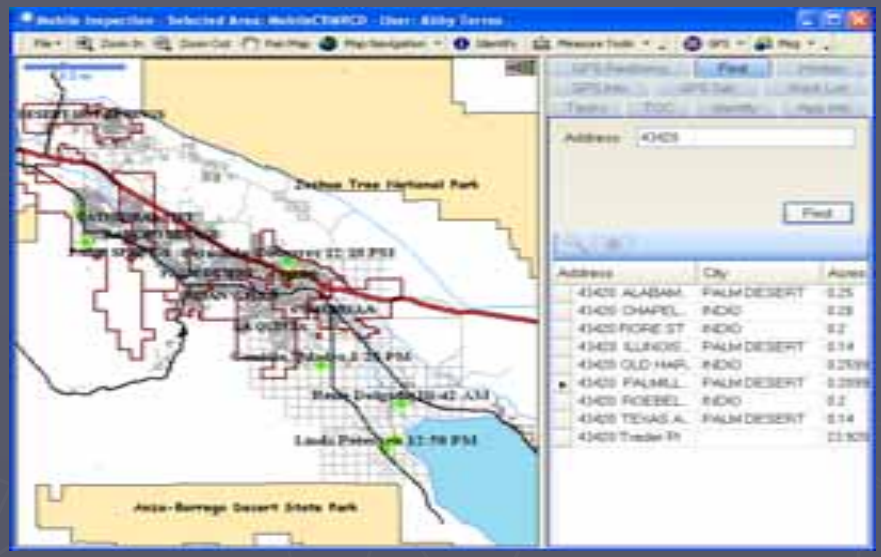
Roles Limit Visibility of Forms

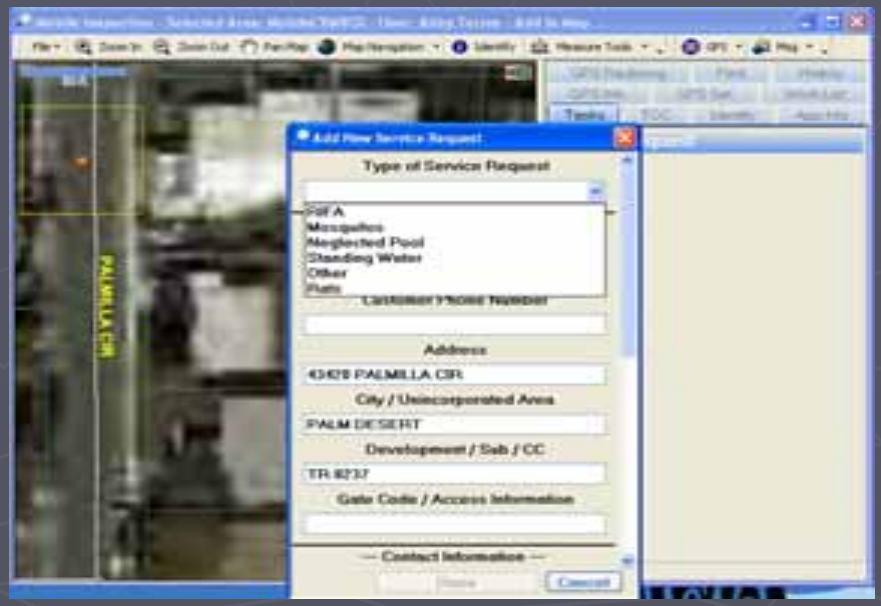


- The Call Center will only see forms for their particular role.
- The form for the Call Center is a Service Request form.
- Depending on type of call; will determine what Supervisor is chosen.

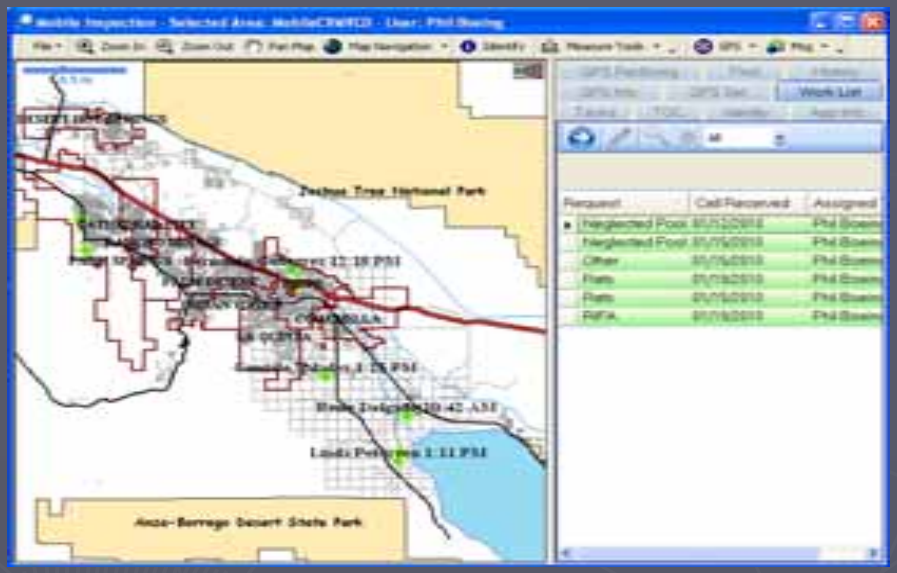
Service Requests

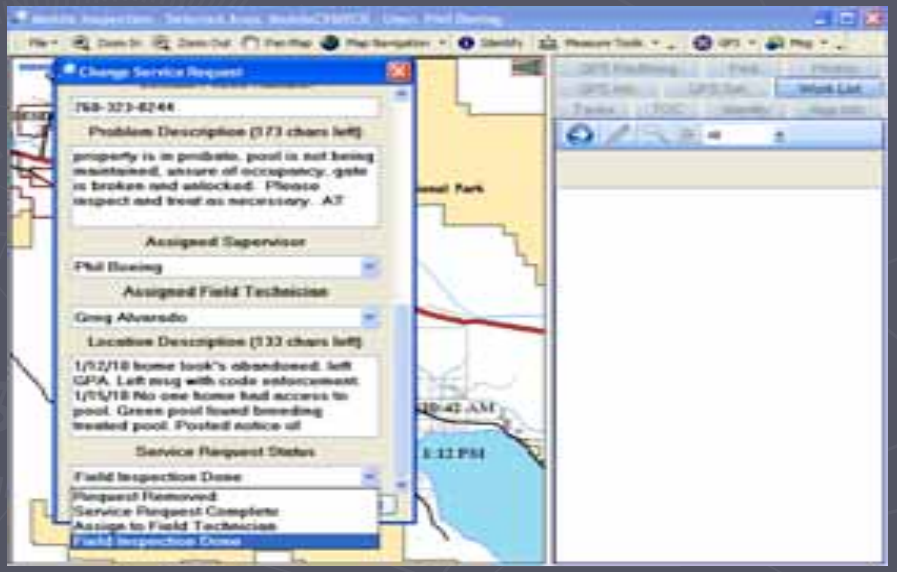
- Find: Will locate parcel
- The Mobile Unit will zoom to the location.
- The Service Request task form will be auto populated with location information.
- E-Mail address, Problem Description, Location Description,
- Assign to Supervisor





Supervisor Role

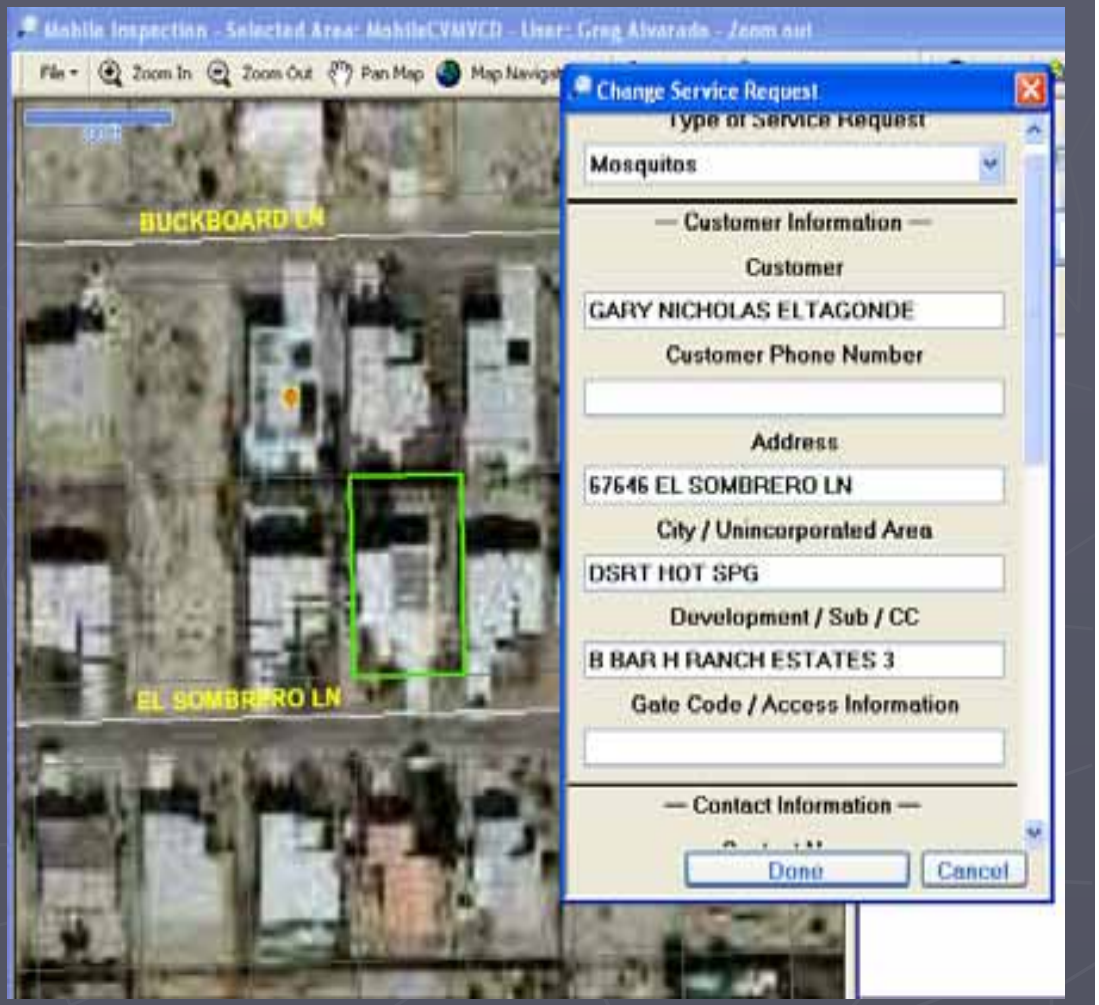




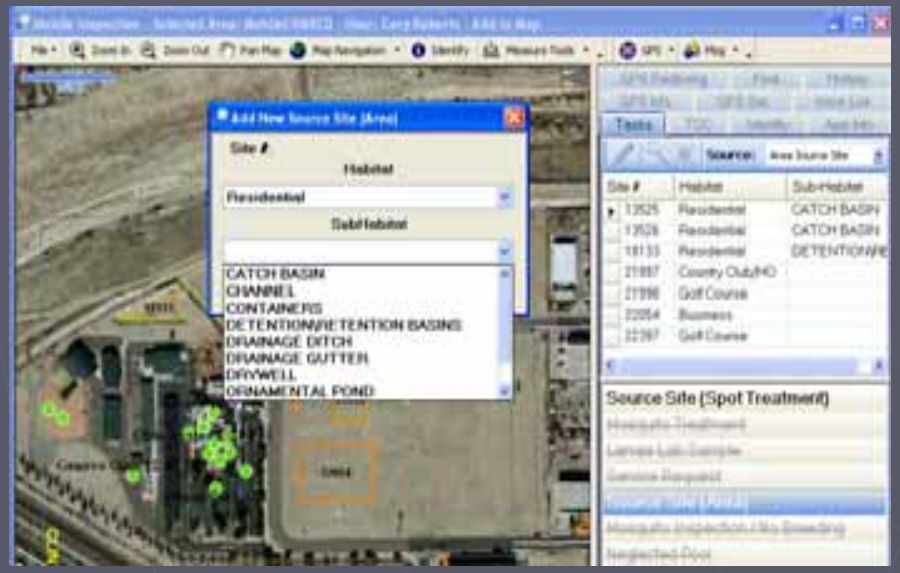
- Supervisor will receive Service Requests in work cue.
- Will distribute to technicians according to area.
- Status of Service Request, re-assign or dismiss.
- Both coming and going.
- Held in database for reports.

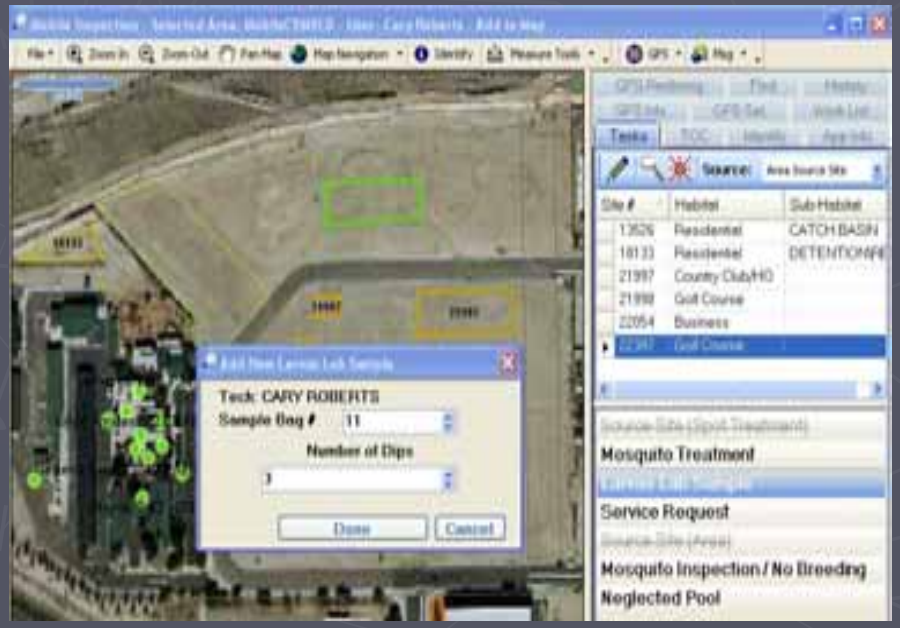
Technician Service Request

- Location marked by green outline.
- Technician reads problem from Service Request to determine course of action.



Treatment

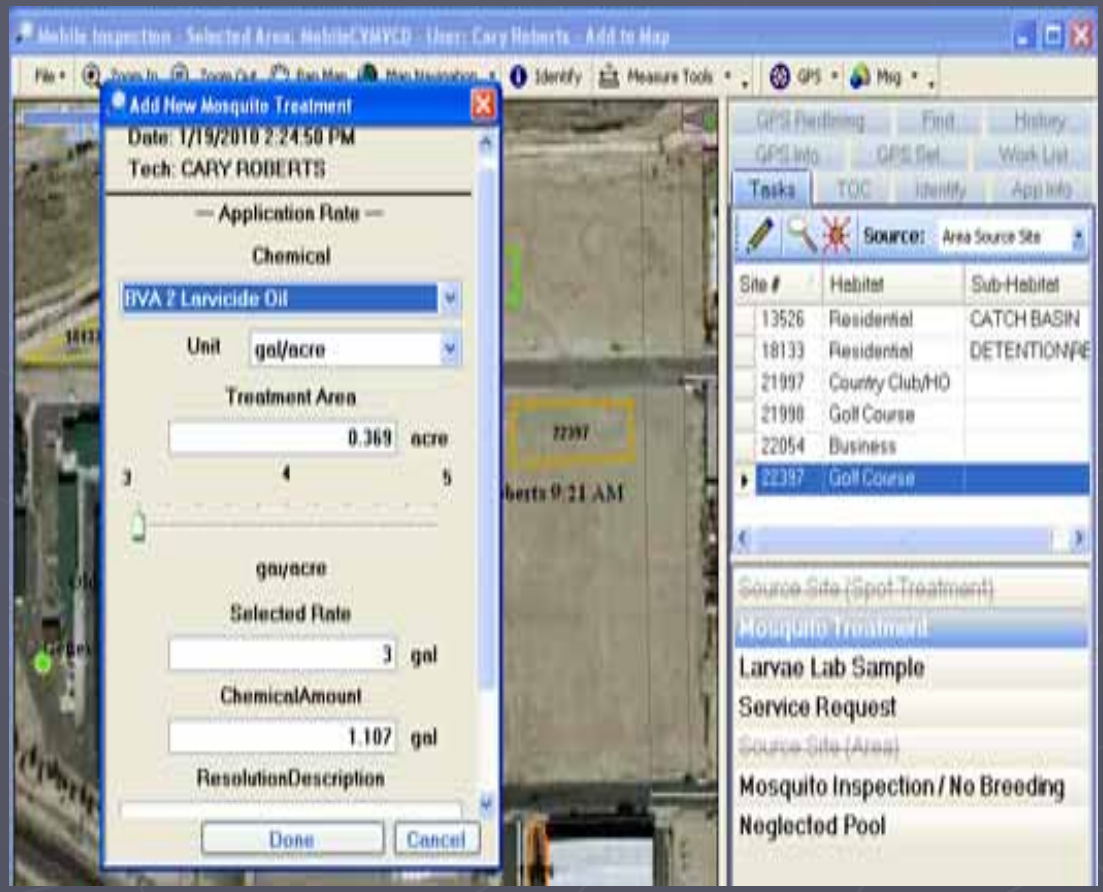




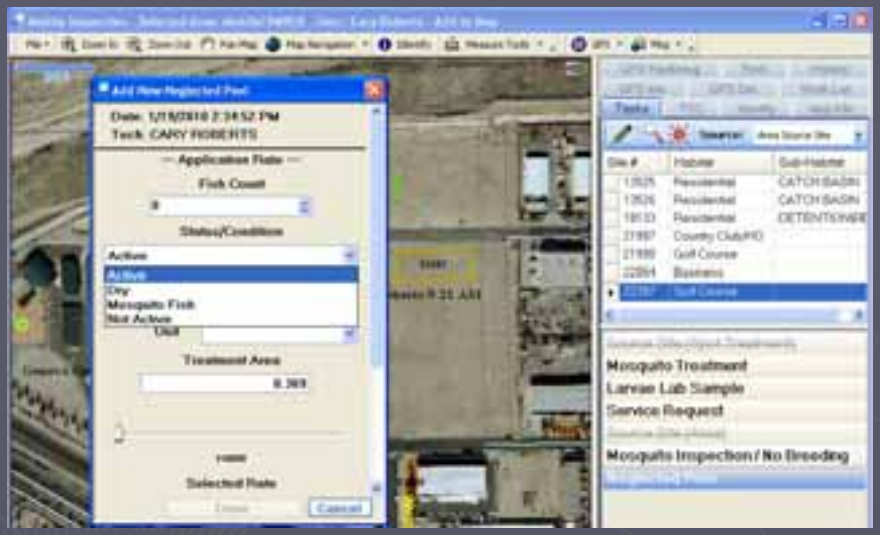
- Can create either a point source or area source.
- Technician selects Habitat and Sub-Habitats.
- System creates new record. Select record and perform treatment or Larvae Sample.
- Notice forms become active once record is created.

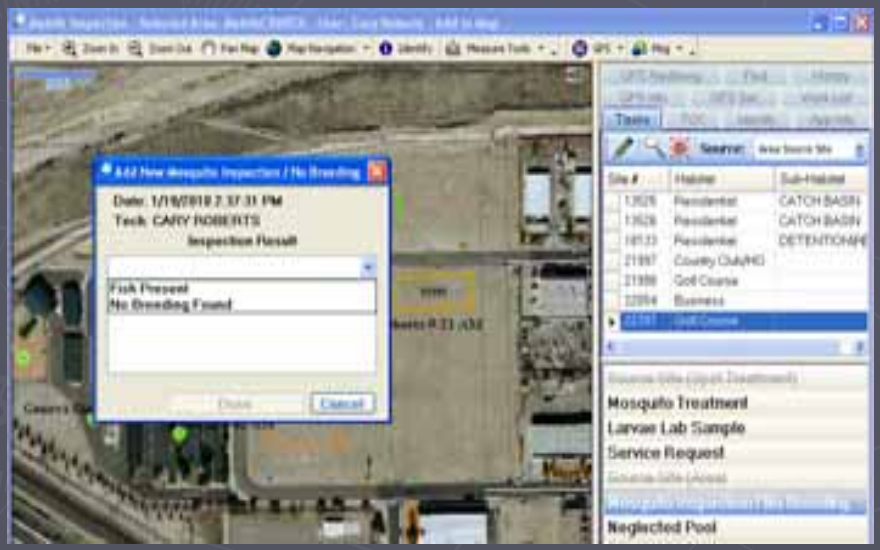
Application Form

- The area is automatically calculated (sq ft, acreage).
- Depending on chemical choice and min max range, amount is calculated for you.
- Resolution Description to record action taken.



More Than One Choice

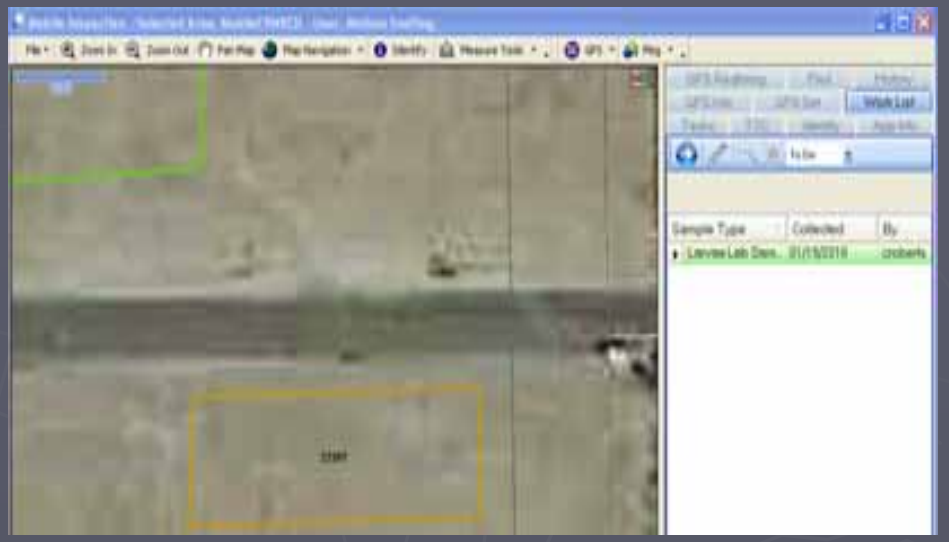


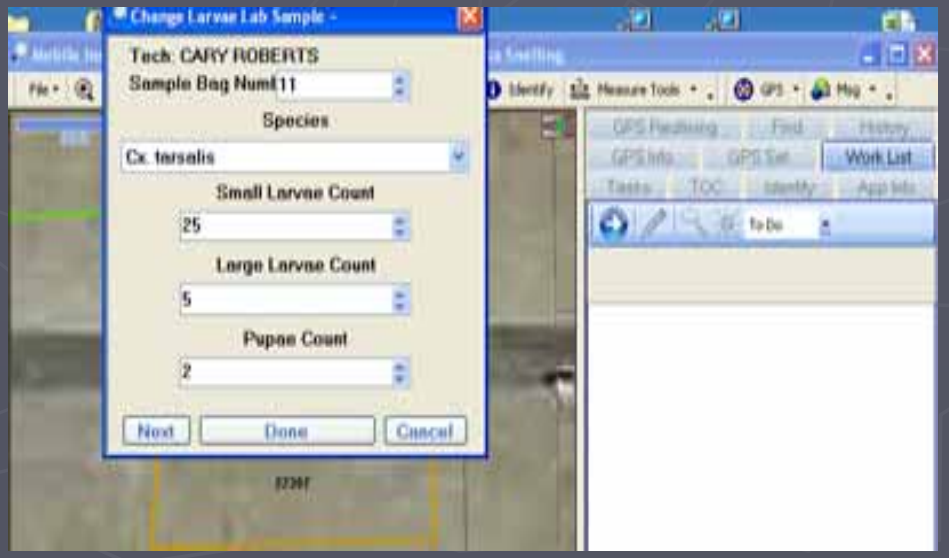


- If Source Site is Neglected Pool use Pool Form to record activity. Chemical List same as Mosquito Treatment.
- If just Inspecting use the Inspection form and record comments.

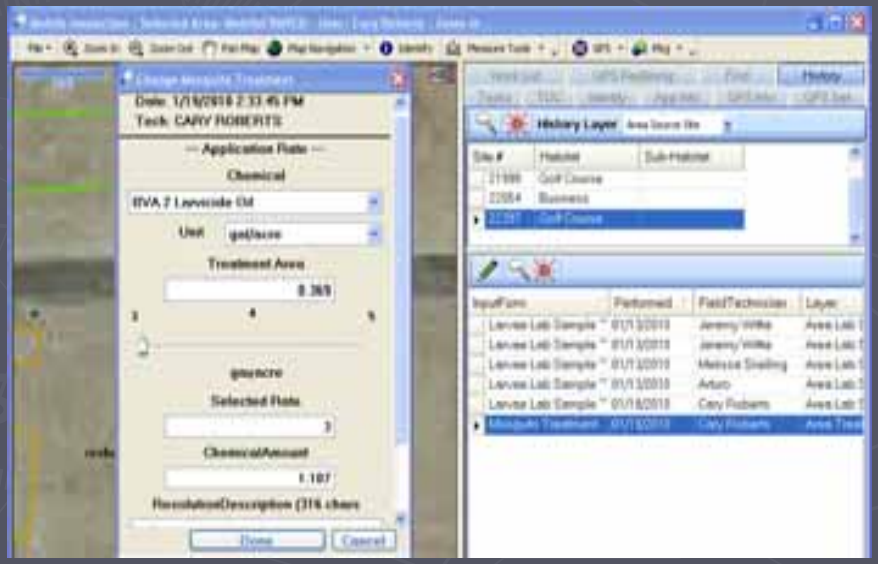
Larvae Lab Sample

- Lab Technician analyzes field sample.
- Lab Technician sees work cue of Lab Samples in the field tied to a location.
- Performs inspection and records sample, can record more than one species per site.





History in the Field

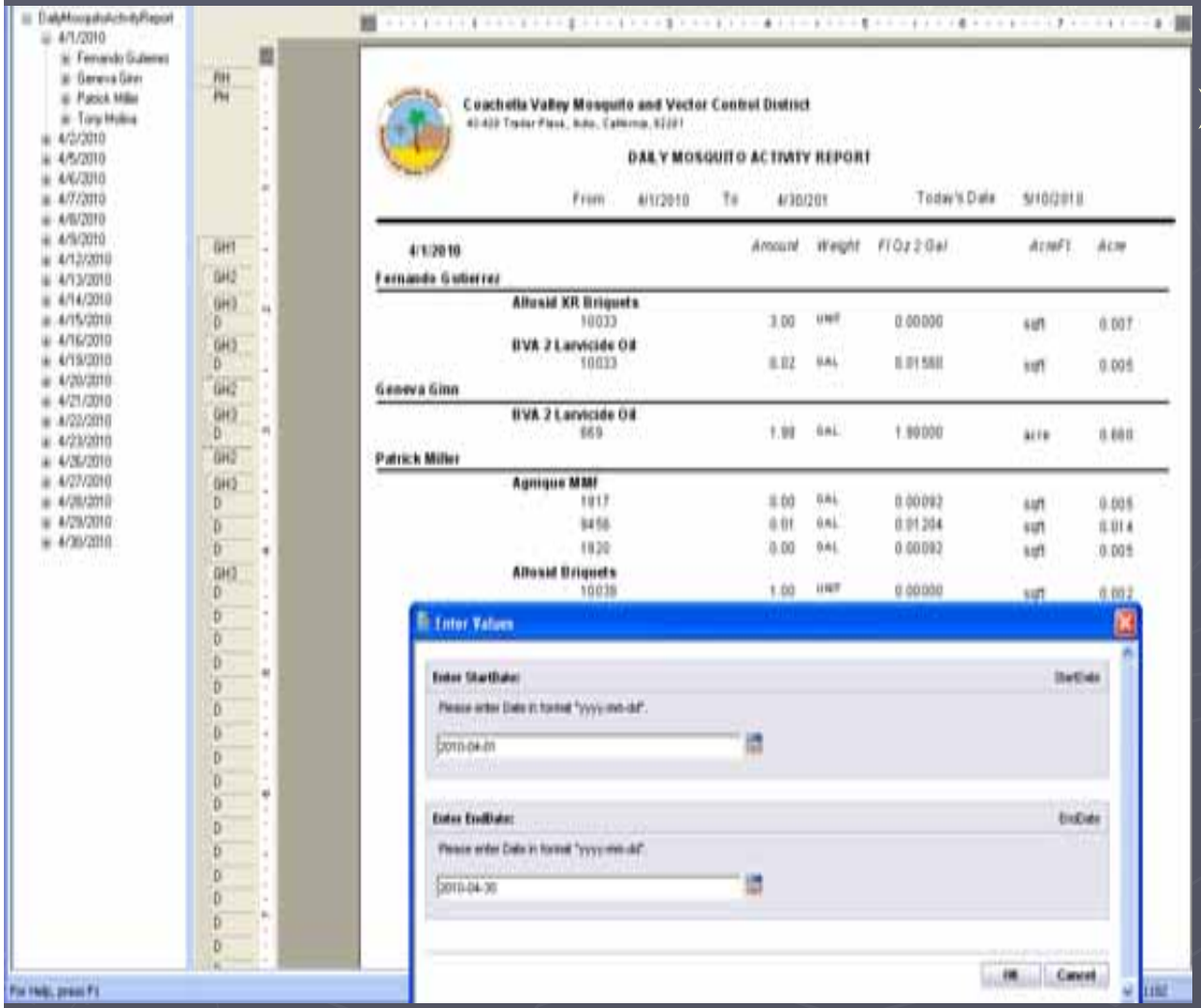


- Technician can see if any previous treatments have been performed at this location.
- Can open old treatment and see amounts or larvae counts.

RIFA Workflow

- RIFA (Red Imported Fire Ant) has the same work flow; Service Request; Supervisor; Technician, Treatment; Back to Supervisor.
- The Pre and Post Treatment forms are the same.
- Chemicals are different than mosquito treatments.

Daily Reports



- Built in to Arc Gis; Reports for daily mosquito use with calendar range selection parameter.

Service Request Reports

Coachella Valley Mosquito and Vector Control District
43-420 Trader Place, Indio, California, 92201

1/1/2010 - 1/31/2009

COMPLETED SERVICE REQUESTS BY CITY REPORT

RANCHO MIRAGE

DATE	ContactName	ServiceRequestType	FieldTechnician	PROBLEM DESCRIPTION	RESOLUTION DESCRIPTION
02/02/2010	Denny Evans	Rats	Erica Frost	Would like a rat inspection at Space #140 inside Blue Skies Village Mobile Home Park. Please call him to schedule an appt. Would like exclusion tips and brochure. AT	

COACHELLA

DATE	ContactName	ServiceRequestType	FieldTechnician	PROBLEM DESCRIPTION	RESOLUTION DESCRIPTION
01/11/2010	SAME	RIFA	Lee Ernst	Fire Ants by green iron fence as walking into the retention basin. This is a common area. lp	

INDIO

DATE	ContactName	ServiceRequestType	FieldTechnician	PROBLEM DESCRIPTION	RESOLUTION DESCRIPTION
02/01/2010	Lana Collins	Rita	Fernando Fregoso	Seeing possible RIFA in the grass area by plants, please inspect front and back yards. Please go before 2pm. SCHEDULED FOR: 02/02/10	

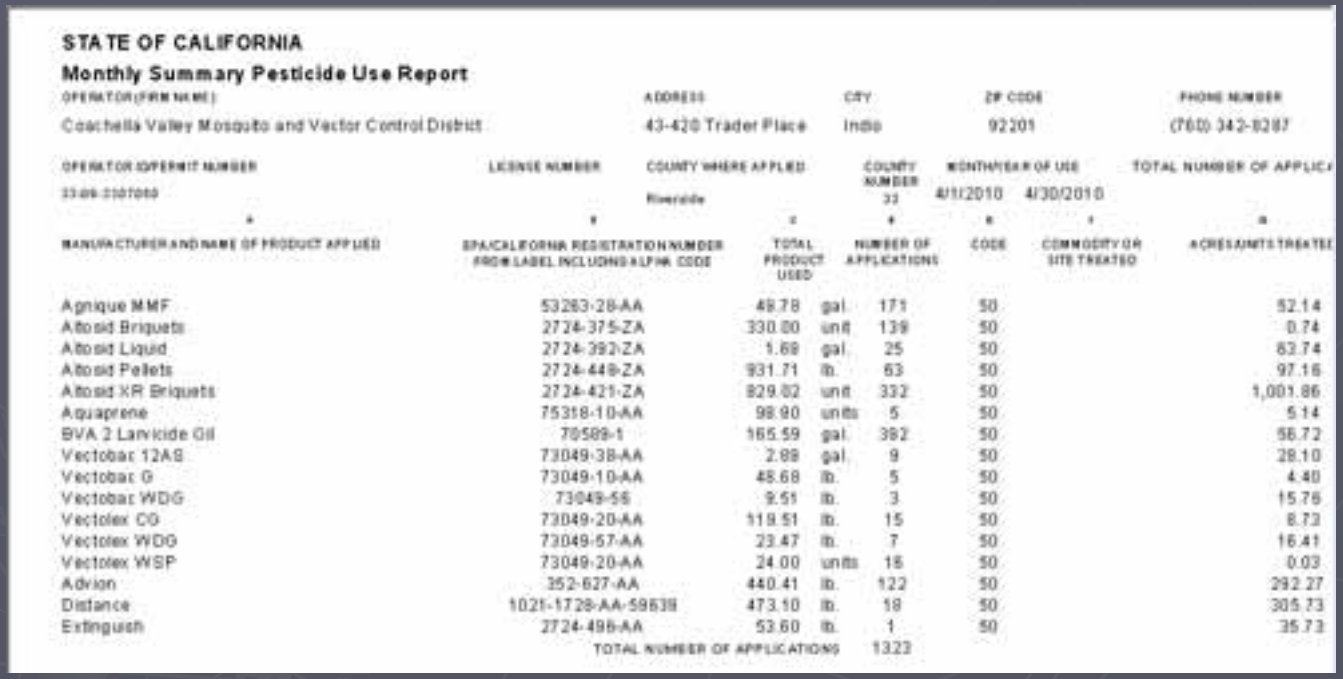
LA QUINTA

DATE	ContactName	ServiceRequestType	FieldTechnician	PROBLEM DESCRIPTION	RESOLUTION DESCRIPTION
02/01/2010	Chris Mooney	Rita	Fernando Fregoso	Husband got bit while opening water meter, please inspect front and back yards. SCHEDULED FOR 02/01/10. AT	
01/19/2010	Myrna - Trilogy HOA	Neglected Pool	Victor Sorima	House is vacant, pool is not being maintained, side gate is open.	
01/19/2010	Mirna - Trilogy HOA	Neglected Pool	Victor Sorima	house is vacant, pool is not being maintained. Unsure about access. Please inspect and treat.	

PALM DESERT

DATE	ContactName	ServiceRequestType	FieldTechnician	PROBLEM DESCRIPTION	RESOLUTION DESCRIPTION

Monthly Reports



STATE OF CALIFORNIA

Monthly Summary Pesticide Use Report

OPERATOR (FIRM NAME)	ADDRESS	CITY	ZIP CODE	PHONE NUMBER
Coachella Valley Mosquito and Vector Control District	43-420 Trader Place	Indio	92201	(760) 342-8287

OPERATOR ID/PERMIT NUMBER	LICENSE NUMBER	COUNTY WHERE APPLIED	COUNTY NUMBER	MONTH/YEAR OF USE		TOTAL NUMBER OF APPLIC
33-06-2107060		Riverside	33	4/1/2010	4/30/2010	
a	b	c	d	e	f	g

MANUFACTURER AND NAME OF PRODUCT APPLIED	EPA/CALIFORNIA REGISTRATION NUMBER FROM LABEL INCLUDING ALPHA CODE	TOTAL PRODUCT USED		NUMBER OF APPLICATIONS	SITE CODE	COMMODITY OR SITE TREATED	ACRES/UNITS TREATED
Agnique MMF	53283-28-AA	49.78	gal.	171	50		52.14
Altosid Briquets	2724-375-ZA	330.00	unit	139	50		0.74
Altosid Liquid	2724-392-ZA	1.68	gal.	25	50		63.74
Altosid Pellets	2724-449-ZA	931.71	lb.	63	50		97.16
Altosid XR Briquets	2724-421-ZA	829.02	unit	332	50		1,001.86
Aquaprene	75318-10-AA	98.90	units	5	50		5.14
BVA 2 Larvicide Oil	70589-1	165.59	gal.	392	50		56.72
Vectobac 12AS	73049-38-AA	2.88	gal.	9	50		28.10
Vectobac G	73049-10-AA	48.68	lb.	5	50		4.40
Vectobac WDG	73049-56	9.51	lb.	3	50		15.76
Vectolex CG	73049-20-AA	119.51	lb.	15	50		8.73
Vectolex WDG	73049-57-AA	23.47	lb.	7	50		16.41
Vectolex WSP	73049-20-AA	24.00	units	16	50		0.03
Advion	352-627-AA	440.41	lb.	122	50		282.27
Distance	1021-1728-AA-59639	473.10	lb.	18	50		305.73
Extinguish	2724-496-AA	53.60	lb.	1	50		35.73
	TOTAL NUMBER OF APPLICATIONS			1323			

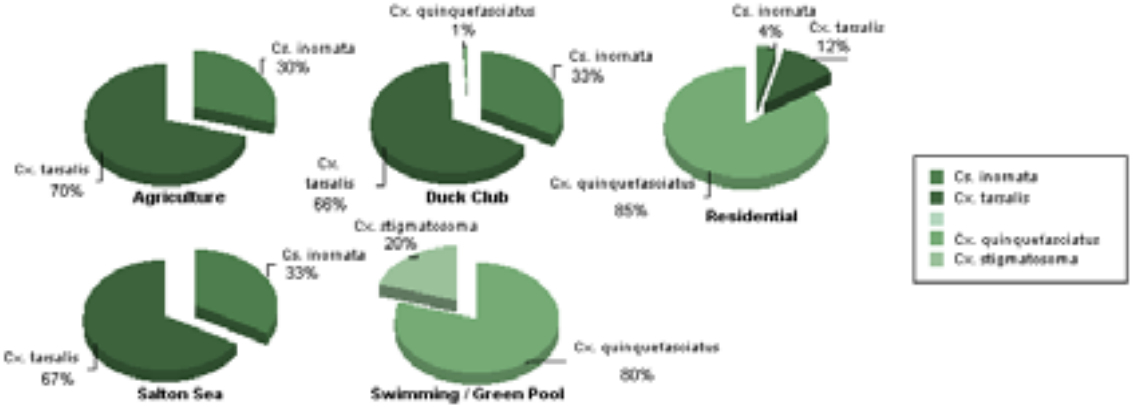
- Grouped by different categories produce efficient reports.

Habitat Report

Coachella Valley Mosquito and Vector Control District
45-420 Trader Place, Indio, California, 92201

LARVAE SAMPLES BY HABITAT DATA
AS OF 3/1/2010 **TO** 3/31/2010

MOSQUITO SPECIES BY HABITAT



AGRICULTURE

CITRUS

SITE	DATE	BAG	DIPS	SPECIES	SMALL	LARGE	PUPAE	FieldTechnician
1,197	03/03/2010	2	12	Cx. tarsalis	22	17	0	Rene Delgado
1,197	03/03/2010	2	12	Cs. inornata	19	5	0	Rene Delgado

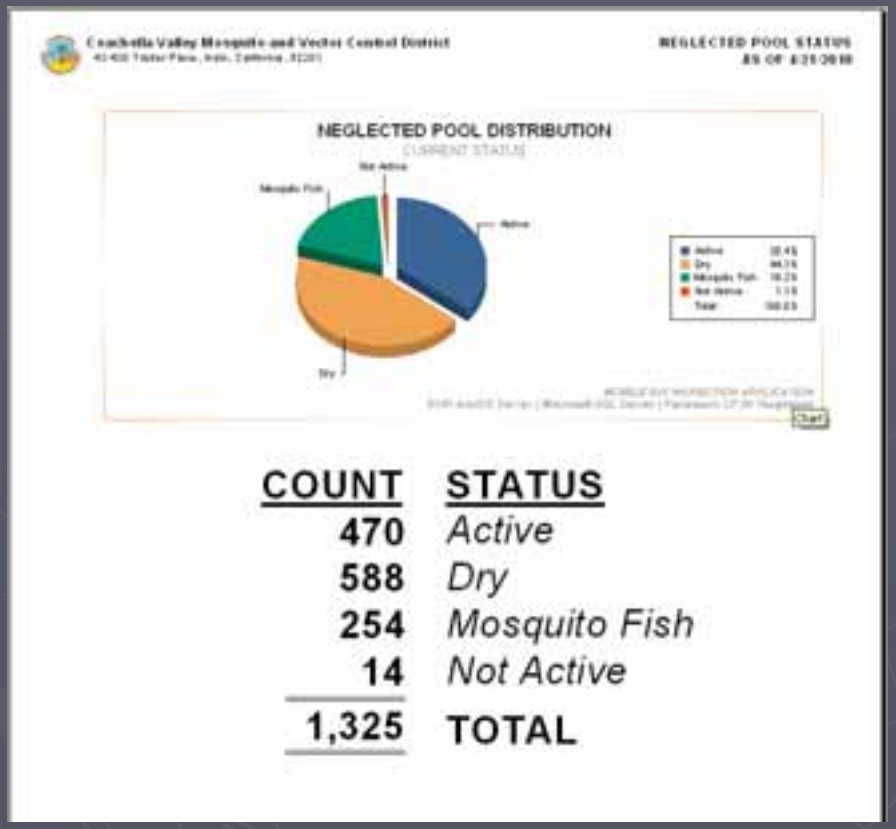
DESERT FLOODING

SITE	DATE	BAG	DIPS	SPECIES	SMALL	LARGE	PUPAE	FieldTechnician
4,313	03/03/2010	1	10	Cx. tarsalis	37	4	13	Gonzalo Valadez
262	03/03/2010	3	10	Cx. tarsalis	16	31	0	Rene Delgado
262	03/03/2010	3	10	Cs. inornata	3	4	6	Rene Delgado
3,717	03/03/2010	10	10	Cx. tarsalis	42	61	0	Gonzalo Valadez
3,717	03/03/2010	10	10	Cs. inornata	14	0	0	Gonzalo Valadez
4,511	03/04/2010	5	10	Cx. tarsalis	126	96	15	Hal Miller
4,511	03/04/2010	5	10	Cs. inornata	10	6	1	Hal Miller
4,340	03/09/2010	7	2	Cx. tarsalis	1	1	11	Rene Delgado
4,511	03/16/2010	4	15	Cx. tarsalis	22	71	0	Miguel Vargas
4,511	03/16/2010	4	15	Cs. inornata	5	39	0	Miguel Vargas
4,509	03/17/2010	3	15	Cx. tarsalis	247	13	2	Gonzalo Valadez
4,549	03/29/2010	2	20	Cx. tarsalis	29	11	0	Gonzalo Valadez
4,476	03/30/2010	26	10	Cx. tarsalis	234	726	131	Linda Petersen

DRAINAGE DITCH

SITE	DATE	BAG	DIPS	SPECIES	SMALL	LARGE	PUPAE	FieldTechnician
1,517	03/01/2010	9	10	Cx. tarsalis	20	117	11	Gonzalo Valadez
4,501	03/01/2010	12	8	Cx. tarsalis	63	24	1	Hal Miller
4,501	03/01/2010	12	8	Cs. inornata	0	1	1	Hal Miller
4,493	03/09/2010	4	10	Cx. tarsalis	35	27	0	Rene Delgado
29	03/30/2010	24	15	Cx. tarsalis	3	12	1	Linda Petersen

Pool Report



COUNT	STATUS
470	*Active*
588	*Dry*
254	*Mosquito Fish*
14	*Not Active*
1,325	TOTAL

- Same selection criteria as Mosquito Daily and Monthly Reports.
- Easier to plant fish and maintain then historical methods.
- What about the cities wanting our information?

Status of Each City

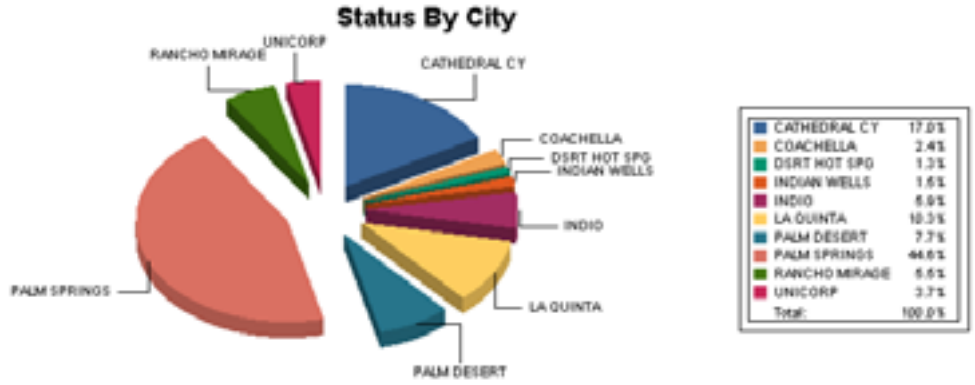
Coachella Valley Mosquito and Vector Control District
43-420 Trader Place, Indio, California, 92201

5/10/2010

NEGLECTED POOL STATUS BY CITY

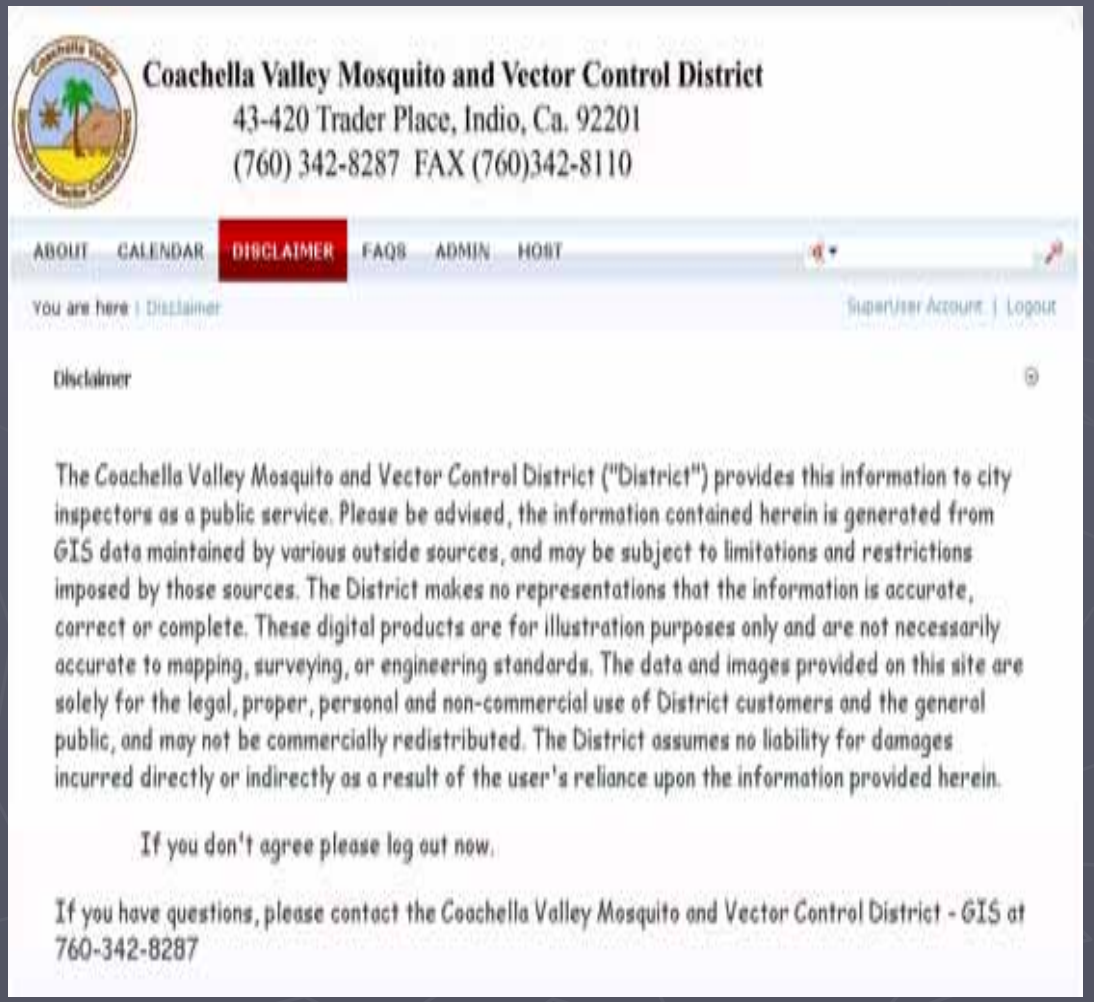
From 1/1/2010 To 5/10/201

	ACTIVE	DRY	MOSQUITO FISH	NOT ACTIVE	Total
CATHEDRAL CY	52.00	20.00	10.00	10.00	92.00
COACHELLA	1.00	7.00	0.00	5.00	13.00
DSRT HOT SPG	3.00	0.00	3.00	1.00	7.00
INDIAN WELLS	2.00	3.00	0.00	3.00	8.00
INDIO	13.00	4.00	11.00	4.00	32.00
LA QUINTA	16.00	5.00	31.00	4.00	56.00
PALM DESERT	19.00	11.00	2.00	10.00	42.00
PALM SPRINGS	126.00	56.00	36.00	24.00	242.00
RANCHO MIRAGE	24.00	4.00	2.00	0.00	30.00
UNICORP	8.00	4.00	4.00	4.00	20.00
Total	264.00	114.00	99.00	65.00	542.00



Mobile Portal

- With the mobile came a GIS portal for download of Menu updates and mobile caches.
- Why not use it for download of shape files for city inspectors?



Shape Files of Valley Cities

- Now we can coordinate our activities with the respective cities and save on costs.
- No GIS, open XXX.DBF with EXCEL.

Thank You

http://gisportal.cvmvcd.org/portal/
For download of shape files.

Questions?

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Edward Prendez, IT Analyst
eprendez@cvmvcd.org

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