

MUNICIPAL MAINTENANCE

MUNICIPAL MAINTENANCE

QUALITATIVE RESULTS

Municipality: Town of Moraga

Permit Year: (2006/2007)

Introduction:

The goals of the Town maintenance program focus on implementing cleaning activities such as sweeping and inlet cleaning to minimize the potential of pollutants reaching the waterways. It also focuses on ways to minimize the risk of discharges from maintenance activities to the storm drain system. Staff encourages resident stormwater awareness, proactive pollution prevention practices. Staff also monitors and measures the effectiveness of Town stormwater best management practices (“BMPs”). Staff also remains informed on Clean Water Program maintenance issues by participating in the “Muni” Maintenance work group and attending the Regional IPM Symposium hosted by the Alameda Countywide Clean Water Program. Monitoring the effectiveness of the Municipal Maintenance Performance Standards is promulgated by comparing year to year data.

The Town’s maintenance is done by four full time staff, a contract street sweeping service, and a contract vacuum service. The principal contact for all municipal maintenance activities is Kyle Salvin, SR Maintenance Worker, Maintenance Superintendent, (925) 372-2521. The Town also supplements the Public Works field staff with “work furlough” personnel assigned by the County Court system. The Town’s maintenance staff is primarily dedicated to cleaning the Town’s facilities including streets, parks, drains and open space areas. The majority of the Town’s maintenance budget is for cleaning and maintenance activities on parks, drains and other Town facilities.

As a result of citizen interest, Moraga finds that there is relatively little debris, litter, trash or other pollutants within the community. As in the past years, there is no record of any complaints regarding litter this reporting year. The Town’s routine maintenance efforts are concentrated on Town cleanliness and its appearance, but the Town is identifying Ascot and Camino Ricardo as “hot spots” based on hydro-vac data^a.

The Town does not have a traditional Public Works corporation yard. There is a small facility where only hand tools, mowers and small amounts of agricultural chemicals are stored. The other traditional corporation yard activities are contracted out. Staff’s role, therefore, becomes one of managing the contractor activities to ensure compliance with BMPs that relate to Municipal Maintenance, and verifying contractor compliance with performance standards. This year staff observed the contractors performing their services to ensure the Town Ordinance is being adhered to.

^a See attachment MN-1 Hydro-Vac locations.

The Town is a member of the Municipal Maintenance Work Group hosted by the Contra Costa Clean Water Program. Staff also attended Program training and workshops^b. Note that the sweeping contract service provider UBS has not provided records in the past of either training or maintenance and refuse to provide records now. The Town has the service provider under a Purchase Order rather than a contract. The Town will be looking into bidding the work under a specification that the contract service provider will furnish the Town with records of training and maintenance.

Implementation & Evaluation:

Street Cleaning/Sweeping

Moraga’s street sweeping program provides monthly sweeping for commercial areas. Residential areas were swept quarterly during the program year which has been found to be effective. This is again supplemented by both proactive and reactive hand sweeping on weekends using “work furlough” personnel designated by the County Court system. The volume of material swept up during the permits reporting years are in the table below.

Contract Sweeping Volume Totals

Reporting Year	Volume Collected by Sweeping (yds ³)
2002-03	132.5
2003-04	159.5
2004-05	173.5
2005-06	201
2006-07	254 ^c

There is no significant construction work or grading activities in the Town that would indicate that the increase over time is driven by a lack of cleanliness by contractors. Similarly, there is no other activity within the Town that would indicate an increase in the resident amount of material to be swept up. Finally, there has been no change over the last five reporting periods in the frequency of sweeping. Again we conclude as we did last year that the sweeping effort over the last five reporting periods has increased by 192% overall, or on a year to year basis 20%, 9%, 16% and now 21% due to concentrating the frequency of sweeping to the “rainy” season months(October-April). From these statistics we conclude that the current level of effort is effectively removing a larger volume of pollutants from the streets and gutters prior to their mobilization into the storm drain. These results will be further monitored over the next year’s program to

^b See Volume1, Section 3 for attendance roster for Program training

^c See record of sweeping amounts MN-2

evaluate the effectiveness of the current level of sweeping and determine the benefit of increased sweeping efforts during the “rainy” season months.

Storm Drainage Facility Inspection & Maintenance

The Town staff, as a matter of routine maintenance, inspects and cleans every single drainage inlet (858) within the Town annually. Results to date indicate the need to target two areas in Town as “Hot Spots”. Cleaning of the two Hot Spots was done at three different times during the year. This is in comparison to the maintenance division’s standard of annual cleaning in the fall in order that these activities are completed prior to rains that often begin in early October. The following table has been included showing the permits reporting years and the volume of debris removed.

Contract Catch Basin Debris Volumes

Reporting Year	Volume collected by Vacuum (yds ³)
2002-03	No Data
2003-04	25
2004-05	4
2005-06	13
2006-07	16

Debris collected or deposited in the inlets is removed from the system so it will not be flushed to the creeks. Additional cleaning is provided during the fall “leaf season” to limit drainage system blockages but also to provide additional system inspection. The August/September cleaning efforts are performed by private contractor using a vacuum truck with all materials stored and dried in the contractor’s corporation yard prior to transporting to Valley Waste dumpsite.^d

Litter Control

In concert with the storm inlet maintenance program the Town also has an extensive litter collection program. We have placed litter/ trash receptacles throughout areas susceptible to litter deposits, including public transit stops, adjacent to fast food establishments, in community and neighborhood parks, near secondary schools, and in the two community shopping centers. These are collected a minimum of once per week and often more frequently during and after community events. For the 2002-03 report 286 cubic yards of material was indicated. For the 2003-04 report, 143 cubic yards of material was indicated. For 2004-05, 55 cubic yards of material was collected from trash receptacles within the Town. For 2005-2006 14 cubic yards of material was collected. This fiscal year 27 cubic yards of trash^e was collected. Collection records are available in the Town Maintenance office.

^d Also, see qualitative results for amounts collected

^e See litter collection summary (Attachment MN-3)

After reviewing the trash collection records from this year and comparing them to last years records, there were more collections in 2006-07. There is no particular event that explains the increase, although it is only an increase from the equivalent of one dumpster to two. Nonetheless, the Town is still conducting the same number of collections, at the same number of locations. Further, the Town is not experiencing an increase in the amount of litter to be found strewn around the Town. The Town of Moraga has never had a real trash or illegal dumping problem in our creeks. This would be due to the fact that a majority of the Town's creeks pass through a number of residential properties. To continue to keep the residents aware of the fact that it is their responsibility to keep their creek clean the Town publishes a flyer titled "Creeks and V-Ditches" as part of our PEIO Performance Standard. Municipal operations with regards to the Creeks primarily are concentrated at the "Hacienda" Town offices. Nonetheless, the creeks in general are clean and not a source of significant trash accumulation.

Graffiti Abatement Practices

As in previous reporting years, the Town continues to be essentially graffiti free.^f When graffiti removal is necessary it is done by either painting over it or by using a pressurized application of a fine silica sand/water mix. The residue is then swept up, dried and then transported to an authorized landfill. Graffiti is addressed as soon it is encountered. Experience has shown that when graffiti is not addressed immediately, it acts as an attractor of more graffiti. Rapid response is the most effective way to reduce graffiti and the pollution potential it creates.

General Practices for Road Repair and Maintenance

General road repair and maintenance is performed through contracts. Town maintenance staff will only perform emergency repairs of potholes. Accordingly there are no stockpiles of road grindings or paving materials maintained by the Town. Contract specifications require either the reuse of removed concrete and asphalt products within the road work, or transport to a properly equipped recycler or disposal site. To ensure that storm waters are not contaminated, all programmed paving work is performed during the dry season. Emergency repairs are performed using "cold patch" Asphalt to fill potholes until dry season permanent repairs can be made. No road oils are used during the rainy season. This year's Municipal road repairs consisted of miscellaneous patch repairs and crack sealing of 18 miles of streets. Also Town Public Works oversight inspections were performed during East Bay Municipal Utility Districts (EBMUD) water utility main retrofits. These inspections focused on protecting the storm drain catch basins from receiving any mobilized pollutants from reaching them.

^f No graffiti was placed on Town facilities in 2006-2007. Graffiti has been placed on Town facilities only twice in the past seven years.

General BMPs for Municipal Maintenance Facilities

The person with the primary responsibility for the implementation of the Storm Water Pollution Prevention Plan for the Municipal Maintenance Facility^g is Kyle Salvin. He is the Town representative at the various seminars and workshops related to maintenance performance standards, including the Integrated Pest Management conference (Mike Powers). The IPM policy, discussed in last year's report, was unanimously approved by the Town Council and is posted at www.up3project.org/documents/Moraga_IPM-Policy.pdf.

The Pollution Prevention Plan provides instruction in the use of the maintenance facility. There is no fueling, lubricating, washing or repair of Town vehicles at the maintenance facility. Those activities are performed either at commercial vendor facilities or at the Acalanes School District maintenance facility. Any leaks are cleaned up with commercially available absorption materials and properly disposed of as required. The vehicle storage area is kept clean through regular sweeping and inspection for leakage of fuel or lubricants.

For 2006-2007, the major spraying for pests and weed abatement was again performed under contract by trained staff from Contra Costa County in accordance with the IPM Policy of minimum pesticide usage. This last years spraying by the County was for abatement of artichokes in the Mulholland Open Space. Town staff used only organic fertilizers on turf, and 1.5 gallons of Roundup along the fence line at the Town offices and the traffic medians. As a co-permittee Contra Costa County is required to report its use of herbicides and pesticides^h. It should be noted that as a matter of internal policy the Town subscribes and adheres to the Integrated Pest Management Policy prepared and followed by County personnel.ⁱ

Modifications:

MUNI-1 and 2: These PS's were modified in FY 1998 as noted by footnotes (a), (b), and (c) of that year's annual report and further by footnotes (e) and (f) of the 2002-03 annual report. This was further discussed under "Modifications" in the Municipal Maintenance Performance Standards section of the 2001-2002 annual report. The approved modified performance standard is a quarterly Town-wide sweeping supplemented by weekend hand sweeping as described above. The Town, as mentioned under implementation section increased its sweeping efforts in the commercial areas.

Also, a modification that applies for FY 2007/2008 is that the Town does not operate a corporation yard and therefore the standards that apply to the "Municipal Maintenance

^g See Storm Water Pollution Prevention Plan for the Moraga Municipal Maintenance Facility included with the 2001-02 annual report.

^h See Monitoring Summary Pesticide Use Report for Town staff material application (Attachment MN-4)

ⁱ The Contra Costa County IPM Policy was attached with our 2001-2002 Annual Report

Facility” are not applicable. Those standards are MUNI-60, 64, 84, 87 through 94, and 121 and 122. The Town only washes its vehicle at a commercial facility, therefore Muni-95 through 97 are not applicable. The Town does not operate any fuel dispensing facilities, therefore Muni-98 through 105 are not applicable. The Town only stores small amounts of paint and pesticides, Roundup and “Slugo”, but does not store or use any other hazardous materials, therefore MUNI-106 through 111 and 114 through 117 are not applicable.

Fiscal Year 2007/2008 Goals:

Two goals were not met in the last fiscal year; they are establishing databases for a. tracking drainage facility inspection and, b. litter hot spots. The Town has set the following goals for 2007-2008:

- 1) Continue to improve documentation and reporting efforts.
- 2) Closely monitor street sweeping efforts vs. volume of material collected to continue reporting changes over time.
- 3) Observe contract service providers activities for BMP compliance.
- 4) Enhance a manual database for tracking drainage facility inspection and cleaning to document the items of MUNI-30 which are:
 - a. Areas/sites inspected;
 - b. Silt and vegetation quantities removed;
 - c. Man-made materials removed, and type and estimate of volume removed;
 - d. Disposal practices and follow-up actions;
 - e. Spill incidents and follow-up actions;
 - f. Application of chemicals (type used, areas applied); and,
 - g. Areas for possible improvements.

Effectiveness will be measured by:

- 1) Producing improved documentation.
- 2) Tracking and reporting changes over time in the effectiveness of sweeping.
- 3) Actively observe and document the contract service providers in the cleaning, sweeping and pesticide application activities.
- 4) Creating the database for drainage facility inspection and cleaning.
- 5) Creating the database for litter removal and litter hot spots.

MUNICIPAL MAINTENANCE – QUANTITATIVE RESULTS

<i>Description</i>	<i>Industrial Areas</i>	<i>Commercial Areas</i>	<i>Residential Areas</i>	<i>Total</i>
Street Sweeping				
Total number of curb miles within Agency's jurisdiction	0	75.2	32.7	107.9
Number of curb miles swept	0	75.2	32.7	107.9
Total volume of material removed through sweeping (cubic yards)	0	\	\	254
Preliminary Estimated Mass (Dry Weight) of Constituents Removed by Street Sweeping				
Total PCBs (lbs)				0.01
Total Mercury (lbs)				0.04
Total Copper (lbs)				31.95
Total Lead (lbs)				11.59
Total Nickel (lbs)				9.61
Total Zinc (lbs)				50.89
Total Petroleum Hydrocarbons (lbs)				622.01
Total Oil and Grease (lbs)				1357.11
Publicly Owned Storm Drain Facilities				
Total Number of Storm Drain Facilities				
Inlets	0	60	798	858
Culverts (miles)	0	0	.4	.4
V-Ditches/Roadside Ditches (miles)	0	0	0	0
Pump Stations	0	0	0	0

<i>Description</i>	<i>Industrial Areas</i>	<i>Commercial Areas</i>	<i>Residential Areas</i>	<i>Total</i>
Constructed Channels ⁽¹⁾ (miles)	0	0	0	0
Natural Watercourses ⁽²⁾ (miles)	0	0	12	12
Trash Racks	0			0
Number of Storm Drain Facilities Inspected/Cleaned				
Inlets	0	60	798	858
Number of Storm Drain Inlets requiring more frequent cleaning	0	2	35	370
Culverts	0	0	.4	.4
V-Ditches/roadside ditches (miles)	0	0	0	0
Pump stations	0	0	0	0
Number of Pump Station Maintenance inspections	0	0	0	0
Constructed Channels ⁽¹⁾ (miles)	0	0	0	0
Natural Watercourses ⁽²⁾ (miles)	0	0	12	12
Trash racks	0	0	0	0
Number of Illegal Dumping Hot Spots identified during Routine Inspections				0
Volume of Material Removed from Storm Drain Facility Cleaning (cubic yards)				
Inlets	0	1.6	14.4	16
Culverts	0	0	0	0
V-Ditches/roadside ditches	0	0	0	0
Pump stations	0	0	0	0
Constructed Channels ⁽¹⁾	0	0	0	0

<i>Description</i>	<i>Industrial Areas</i>	<i>Commercial Areas</i>	<i>Residential Areas</i>	<i>Total</i>
Natural Watercourses ⁽²⁾	0	0	0	0
Trash racks	0	0	0	0
Preliminary Estimated Mass (Dry Weight) of Constituents Removed by Storm Drain Facility Cleaning				
Total Copper (lbs)	\	0.10	0.77	0.87
Total Lead (lbs)	\	0.23	1.76	1.99
Total Zinc (lbs)	\	1.24	4.12	5.36
Total Petroleum Hydrocarbons (lbs)	\	6.64	29.53	36.16
Total Oil and Grease (lbs)	\	7.98	82.60	90.57
Miscellaneous Municipal Activities				
Number of Municipal Maintenance Facility Inlets Stenciled/Marked with the "No Dumping" Message	0	0	0	N/A
Number of Municipal Maintenance Facility Inspections for Leaky Vehicles and Equipment	0	12	0	12
Total Volume of Material Collected from Litter Receptacles	0		0	27yds ³
Pesticide/Herbicide Use				
Total quantity of pesticides/herbicides applied (lbs)	0			
Total quantity of pesticides/herbicides applied (gallons)	0			
Total quantity of pesticides/herbicides applied with copper as an active ingredient (lbs)	0			
Total quantity of pesticides/herbicides applied with copper as an active ingredient (gallons)	0			

<i>Description</i>	<i>Industrial Areas</i>	<i>Commercial Areas</i>	<i>Residential Areas</i>	<i>Total</i>
Total quantity of pesticides/herbicides applied with diazinon as an active ingredient (lbs)	0			
Total quantity of pesticides/herbicides applied with diazinon as an active ingredient (gallons)	0			
Fertilizer Use				
Total amount of fertilizer applied (lbs)	0			10,000
Total amount of fertilizer applied (gallons)	0			0
Number of Employees Attending Municipal Maintenance Training/Workshops				
Municipal training/workshops	0	0	0	2
Program training/workshops	0	0	0	5
Other	0	0	0	0

- (1) **Constructed Channels** – A constructed channel means a constructed pathway for conveying stormwater runoff. The constructed channel may be earthen, rock or concrete lined. It is differentiated from a “v-ditch” in so much as it has a defined bed.
- (2) **Natural Watercourses** – A natural watercourse means a natural pathway for conveying stormwater runoff within defined bed and banks.

MUNI

**Hydro Vac List 2006
Completed 12/5/06**

1. La Salle Dr/Rheem Blvd. 2 Basins
2. 148 Ascot Dr.
3. 96 Devin Dr.
4. 738 Camino Ricardo
5. 806 Crossbrook 2 Basins
6. Danfield/Camino Ricardo
7. 1954 Joseph Dr 3 Basins
8. Baitx/El Camino
9. Larch/Shuey
10. 3 basins @ Danefield and Camino Ricardo
11. 2051 Ascot Dr.
12. 1981 Ascot Dr.
13. 1940 Ascot Dr.

MUNI

4 STAFF FOR BOTH

STREET SWEEPING LOG

MUNI

DATE	DESCRIPTION	QUANTITY	SWEEPER
6/21/2006	Main streets	2yds	mobile
8/1/2006	Main streets	17 1/2	2tymcos 1 mobile
8/30/2006	Main Streets&Z-1-Z-7	19.5yds	2tymcos 1 mobile
9/29/2006	Main Streets&Z-7	22 yrds	2tymcos 1 mobile
10/30/2006	Main Street: &Z-3	22 yrds	2 tymcos 1 mobile
11/30/2006	Main Street: &Z-3 and Donald Dr.	19.5yds	2 tymcos 1 mobile
12/29/2006	Main Streets&Z-6 nd Scofield and Donald Dr.	20yds	2 tymcos 1 mobile
1/29/2007	Main Streets&Z-2,Z-4	20yds	2 tymcos 1 mobile
2/26/2007	Main Streets&Z-1	15yds	2 tymcos 1 mobile
3/26/2007	Crack sealing clean up through out Town	18yds	2 mobiles
3/29/2007	Main Streets &Z-7,part of Z-6	22 yrds	2tymcos 1 mobile
4/27/2007	Main Streets	4yds	2 mobiles
4/30/2007	Main streets & Z-2,Z-3	16yds	2 tymcos 1 mobile
5/29/2007	Main Streets Z-4,Z-5	18 1/2 yrds	2tymco 1 mobile
6/29/2007	Main Streets Z-4,Z-6	18 yrds	2tymco 1 mobile

Moraga 2006-07 Litter Quantities

Date	# of bags	Location								
		Moraga Rd	Moraga Way	St Mary's Rd	Canyon Rd	Camino Pablo	Campolindo Dr	Chalda Way	Donald Dr	Other
8/6/2006	4	X		X						
8/13/2006	6	X		X	X			X		
8/20/2006	6	X	X	X						
8/27/2006	2		X							
9/3/2006	3			X		X				
9/10/2006	6	X	X	X						
9/17/2006	8									
9/24/2006	8	X	X	X			X			
10/1/2006	9	X	X	X				X		Rheem
10/8/2006	10	X	X	X	X	X				
10/15/2006	10	X	X	X		X		X		
10/22/2006	6	X	X	X						
10/23/2006	4	X		X						
10/29/2006	6	X	X	X						
11/5/2006	7	X	X	X		X				C Ricardo
11/12/2006	12	X		X	X	X	X	X		
11/19/2006	8	X		X	X	X				
11/26/2006	11	X	X	X		X	X		X	Rheem
12/3/2006	5	X		X	X					
12/10/2006	4	X		X						
12/15/2006	6	X	X	X						
12/17/2006	4	X		X						
12/23/2006	7	X	X	X					X	Knoll
12/31/2006	8	X		X						Rheem
1/7/2007	8	X		X	X	X				Rheem
1/14/2007	9	X	X	X		X		X		Rheem
1/21/2007	4	X		X						
1/28/2007	8	X	X		X					
2/4/2007	10	X	X	X	X	X	X	X	X	
2/11/2007	11	X	X	X	X	X		X	X	Rheem
2/18/2007	6	X	X	X						
2/25/2007	8	X	X	X	X	X	X	X		Rheem
3/4/2007	10	X	X	X	X				X	
3/11/2007	6	X	X	X		X		X	X	

MONTHLY SUMMARY PESTICIDE USE REPORT
 PRE-ENF-080 (REV. 4/92)
 INSTRUCTIONS FOR COMPLETING THIS FORM ARE INDICATED BELOW AND ON THE REVERSE SIDE

OPERATOR (FIRM NAME) **Town of Moraga** ADDRESS **PO, Box 188** CITY **Moraga** ZIP CODE **94556** PHONE NUMBER **(925) 378-2540**
 OPERATOR ID/PERMIT NUMBER **07-07-072006** LICENSE NUMBER **Contractor** COUNTY WHERE APPLIED **Contra Costa** COUNTY NUMBER **07** MONTH/YEAR OF USE **1/07** TOTAL NUMBER OF APPLICATIONS **3**

1. Complete Columns A, B, C, and D for All Users
 2. Complete Column E by Using One of the Following Codes
- Code 10 - Structural Pest Control: Includes any pest control work performed within or on buildings and other structures
 - Code 30 - Landscape Maintenance Pest Control: Includes any pest control work performed on landscape plantings around residences, or other buildings, golf courses, parks, cemeteries, etc.
 - Code 40 - Right-of-Way Pest Control: Includes any pest control work performed along roadsides, power lines, median strips, ditch banks and similar sites.
 - Code 50 - Public Health Pest Control: Includes any pest control work performed by or under contract with State or local public health or vector control agencies.
 - Code 80 - Vertebrate Pest Control: Includes any vertebrate pest control work performed by public agencies or work under the supervision of the State or county agricultural commissioner.
 - Code 91 - Commodity Fumigation (Nonfood/Nonfeed): Includes fumigation of nonfood/nonfeed commodities such as: pallets, dunnage, furniture, burlap bags, etc.
 - Code 100 - Regulatory Pest Control: Includes any pest control work performed by public employees or contractors in the control of regulated pests.
3. Complete Columns F and G. If Use Does not Fit one of the Above Codes

A MANUFACTURER AND NAME OF PRODUCT APPLIED	B EPA/CALIFORNIA REGISTRATION NUMBER FROM LABEL INCLUDE ALPHA CODE	C TOTAL PRODUCT USED (Check One Unit of Measure)	D NUMBER OF APPLICATIONS	E CODE	F COMMODITY OR SITE TREATED	G ACRES/UNITS TREATED
Monsanto Round UP Pro	524-475-2A	LB OZ PT QT GA 8qt	3	30		
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				