

Salt Lake Valley Health Department Emergency Response Program 2008 Annual Report



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Statistical Review

In 2008, the total number of requests for service and calls to the Emergency Response Program was almost unchanged from 2007. Overall, there were 392 such contacts in 2008 as compared to 394 in 2007. These totals are close to the 2006 total of 411 contacts, which would suggest that in a normal year the Emergency Response Program can expect to receive roughly 400 calls, or an average of 33 per month or approximately one per day.

The actual nature of the calls was relatively unchanged, with inquiries and complaints about Hazardous Waste, Illegal Discharges, and Housing making up the bulk of the calls received. While the total number of actual Hazardous Waste calls in 2008 was slightly higher than 2007, it was still significantly lower than in 2006. Calls regarding Illegal Discharges and Housing were essentially the same as previous years.

Year	Haz. Waste	Dis-charge	Housing	Other	Drinking Water	Food	West Nile	Meth Labs	Disease	Solid Waste	Air Quality	Used Oil	Total
2008	74	79	64	42	7	42	0	11	34	23	9	7	392
2007	62	82	60	40	14	33	1	10	74	8	9	1	394
2006	117	73	54	27	24	24	24	23	20	12	10	2	411

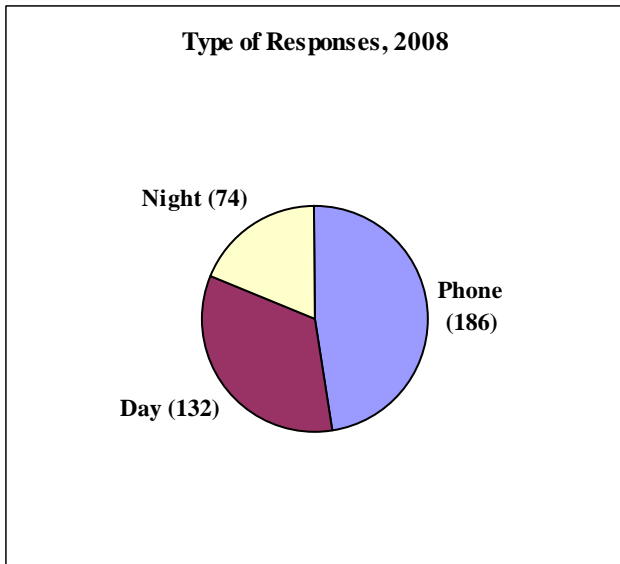
Some changes in the number of calls were noted, namely in the Disease, Drinking Water, Food, and Solid Waste categories. The number of disease-related calls dropped by over 50% to 34 from the previous year's high of 74. This is largely due to the publicity surrounding the swimming pool-related outbreak of *Cryptosporidium* in 2007, which prompted numerous citizens to call the after-hours line with their concerns during the peak of the epidemic. After new control measures were implemented by pool operators 2008, the number of *Cryptosporidium* infections dropped back to normal levels and as a result the number of disease-related calls dropped as well.

The number of food-related complaints continued to increase from previous years, reaching a total of 42 in 2008, as compared to 33 in 2007 and 24 in 2006. The number of solid waste complaints jumped nearly three-fold from just 8 in 2007 to 23 in 2008. There have been no clear reasons for these increases noted by the on-call inspectors.

The number of drinking water-related complaints continues to decline from previous years, tumbling from 24 in 2006 to 14 in 2007 to just 7 in 2008. As with the other categories, there is no clear reason for this decrease.

There were no calls or complaints related to West Nile virus received in 2008. Considering the rapid drop in such calls from 2006 to 2007 it would appear the public is no longer as concerned about the disease as when it was first detected in Utah. Because of the drop future calls regarding West Nile Virus will be counted under the Disease category for 2009, while a new category will be set up to track Bioterrorism ("white powder") incidents.

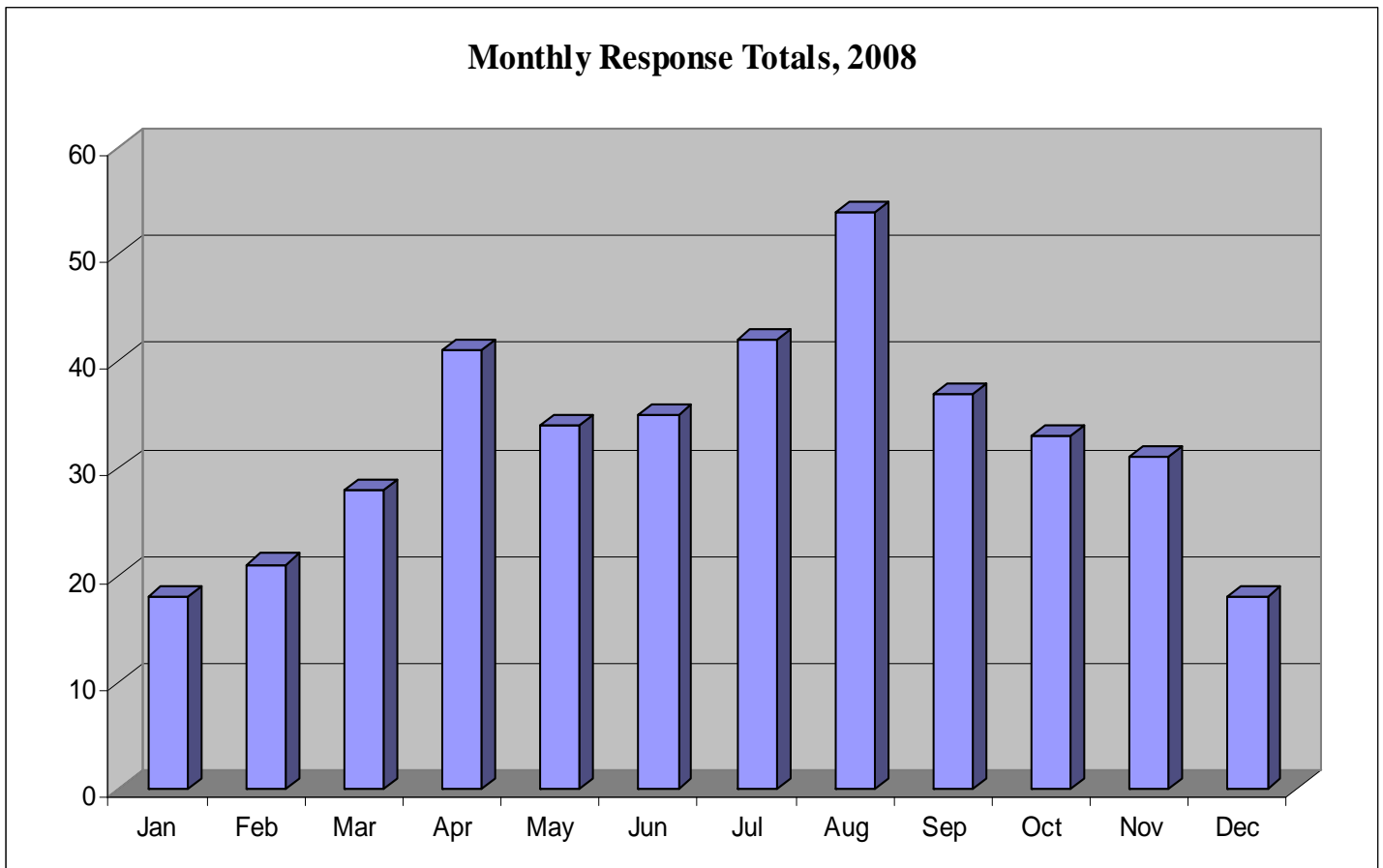
Of the 392 total calls and requests for response that were received by Emergency Response employees in 2008, 186 were after-hours consultations that did not require anything more than providing information to the caller (see chart, “Phone”). This is a significant drop from the 248 such calls that were received during 2007.



However, this was offset by a large jump in the number of requests for immediate responses. While then number of after-hours calls (see chart, “Night”) remained roughly the same (74 in 2008 versus 69 in 2007), the number of daytime requests (see chart, “Day”) nearly doubled from 77 in 2007 to 132 in 2008. There is no clear reason for this change.

The workload of the Emergency Response team continued to be seasonal in nature, with most calls in 2008 received during the spring and summer and fewer during the fall and winter. Of the 392 total responses, an average of nearly 41 per month were received in the months of April-September, while only 25 per month were received in October-March.

As in previous years, the data follow an almost-perfect Bell curve, with a peak of 54 calls in August dropping to a low of 18 in December and January.



Stormwater Program

As noted earlier in the statistical overview, one of the main duties of Emergency Response personnel is the investigation of illegal discharges of pollutants into the gutters, storm drains, and waterways of Salt Lake County. Most local fire and public works departments regularly request assistance for cleaning up and investigating accidental and intentional discharges to the storm drain system. The Health Department responses in these cases can range from providing advice on cleanup to filing Notices of Violation under the Utah Clean Water Act.

Because of a switch of computer systems, there are some inaccuracies in the data for the number of stormwater-related complaints that were received by the Health Department in 2008. A total of 88 were recorded in 2008, an average of over 7 complaints per month with most received between April and October. Of this total, a warning letter was issued to the responsible party in 38 cases. This is virtually unchanged from 2007 when 37 warning letters were issued.

There were 7 illegal discharge cases in 2008 where a Notice of Violation was issued and a settlement conference was held, as compared to 2007 when 9 cases received a Notice of Violation and a settlement conference was held. A total of \$14,668.00 in penalties was issued through these conferences, with \$1,650.00 of the total being suspended as part of the settlement. The actual amount of fines collected in 2008 was \$16,013.00. The difference is due to payments of penalties that were actually issued in 2007.

Review of Notable Cases

The largest illegal discharge case resolved in 2008 was that of a major Salt Lake County company that was repeatedly discharging wastewater from their industrial process into the storm drain near their facility. The water was contaminated by waste from the plant's garbage compactors and contained sediments, soaps, and



Soapy, dirty water flows in the gutter near a major company that was repeatedly discharging their wastewater into the storm drain.

oil and grease. The discharge occurred whenever the sump in the garbage area would fill up with the wastewater and then automatically discharge straight into the gutter through an unauthorized pipe.

The Health Department investigators worked with several different agencies in this case, including the local city's public works department and the US Environmental Protection Agency. They were able to document three separate instances and issue a Notice of Violation to the company. The source of pollution was removed and the company eventually paid a fine of over \$5,000.00.

There were two very unusual cases that were reported to the Emergency Response team in 2008. The first involved a report of someone dumping an unknown substance around trees in a neighborhood. The on-call inspector responded and took samples of a solid substance which was later identified by laboratory analysis as the herbicide Diuron. Because of the possibility the suspect might have been trying to poison a pet or child the case was referred to the District Attorney's criminal investigator.

The investigation later showed the perpetrator was a homeowner who had slowly been poisoning several trees in his neighbor's yards in order to improve his view of the valley and thus increase the value of his home prior to sale. He was eventually charged with several felony counts of illegal use of pesticides and criminal mischief and is currently awaiting trial.



A dead tree stump and grass around it shows the effects of the herbicide Diuron which was used by a neighbor to kill the tree in order to improve his view of the valley

A second, more serious case in March involved the on-call inspector. A report of ricin poisoning in Las Vegas led investigators to a home in Riverton where the victim — who had also purified the toxic compound — had been living with his brother. The investigators determined that the man had been producing the toxin in a storage shed in West Jordan City. The Health Department assisted in the investigation, providing expertise and support. The investigation involved several local, federal and state agencies and was notable because it was a “real life” drill for a potential biological or chemical terrorist attack.

While most calls and complaints received by the Emergency Response team are not as exotic, they do encompass a wide array of subjects. On-call inspectors need to have a broad knowledge of relevant laws, regulations, biology, chemistry, and even psychology.

Many persons who call on weekends and after regular business hours are often angry or distressed due to their problems and sometimes just need someone to listen to them and take their complaint seriously, even if it is not a significant public health issue. A polite and caring attitude is necessary to ensure the public does not get the impression that the Health Department is apathetic towards their concerns.



Hazardous materials technicians decontaminate themselves after sampling for the ricin in a storage unit in West Jordan as part of the investigation of the incident. The suspect was determined to be a hobbyist who just made the toxin out of curiosity.

Mercury Responses

One of the duties of the Emergency Response program is responding to mercury spills and mercury-related calls. In 2006 the county acquired a Jerome Model 405 mercury vapor meter and since then Emergency Response personnel have responded to a wide variety of incidents involving mercury.

During the year 2008, there were a total of 15 separate incidents where the Jerome meter was required to measure mercury vapor after a spill. By comparison, there were a total of 8 such incidents in 2007. The increased number might be due to increased awareness of the availability of the mercury meter by other government agencies in Salt Lake County.



Of the 2008 incidents, three involved broken fluorescent bulbs. Post-contamination surveys in all three cases confirmed that the small amount of mercury in each bulb rapidly dissipated after breakage and no detectable mercury vapor remained.

There were more reports of broken fluorescent bulbs reported to the Health Department in 2008, but because of the preliminary data gathered through past surveys the homeowner is now advised to clean up the broken parts and completely ventilate the affected area; a Health Department response and mercury vapor survey is not considered necessary unless the homeowner wishes it to be done.

Mercury left over from a failed suicide attempt by a Salt Lake County man. He did not die because elemental mercury is relatively non-toxic when swallowed; very little of it is absorbed as it passes through the body.

Because of the history of mining in Salt Lake County, and because there are a number of “hobby” miners who continue to work their small claims, there are a significant number of households in the valley where relatively large quantities of mercury are stored. Each year the Health Department receives requests for assistance in investigating large spills of mercury or disposing of mercury stored in basements, garages, and sheds.

A notable case in 2008 was that of a man who attempted suicide by ingesting approximately 25 milliliters of mercury. While the man spent several days in the hospital for treatment his blood mercury levels did not significantly increase and he eventually passed the mercury in his stools. Due to concerns about contamination Emergency Response employees performed mercury vapor surveys in his mother’s house where he lived and stored his mercury and helped her dispose of the amount that remained. In addition, mercury surveys were performed at the hospital in response to concerns by hospital staff about mercury vapor being released from his feces.