

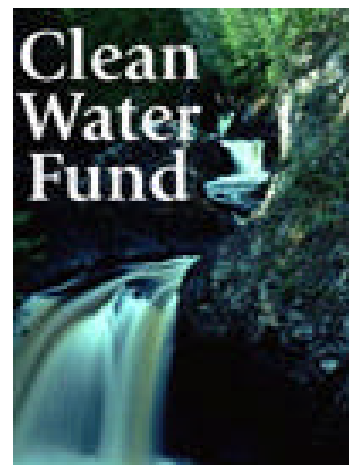


## *Are We Still Wading in Waste?*

### 2006 Florida Sewage Overflow Follow-up Report

Prepared by  
Clean Water Fund

July 2006



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### About Clean Water Fund

[www.CleanWaterFund.org](http://www.CleanWaterFund.org)

Clean Water Fund (CWF) is a national 501(c) 3 research and education organization promoting the public interest since 1978. CWF supports the public interest in protection of natural resources, with a special emphasis on water issues. CWF's programs build on and complement those of CWA. The two organizations have helped to develop, pass, strengthen and defend the nation's major water and toxics laws such as the Clean Water Act, Safe Drinking Water Act, Superfund, and others. CWF's organizing has empowered citizen leaders, organizations and coalitions to improve environmental conditions in hundreds of communities and strengthen policies at all levels from the local to the national.

### About Clean Water Action

[www.CleanWaterAction.org](http://www.CleanWaterAction.org)

Clean Water Action (CWA) is a national 501(c) 4 environmental organization with more than 750,000 members across the country and 40,000 within the state of Florida. CWA works for clean, safe and affordable water, prevention of health-threatening pollution, creation of environmentally safe jobs and businesses, and empowerment of people to make democracy work. CWA organizes strong grassroots groups, coalitions and campaigns to protect our environment, health, economic well being and community quality of life.

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## I. BACKGROUND AND METHODOLOGY

The overflow of wastewater and raw sewage poses a threat to public health, environmental resources, and the economic viability of Florida's still largely tourist-driven economy. Nearly 75% of Florida residents have a centralized sewer treatment facility, yet the conveyance systems in many places are aging, overburdened, or improperly damaged from increasing construction activities for new development statewide.

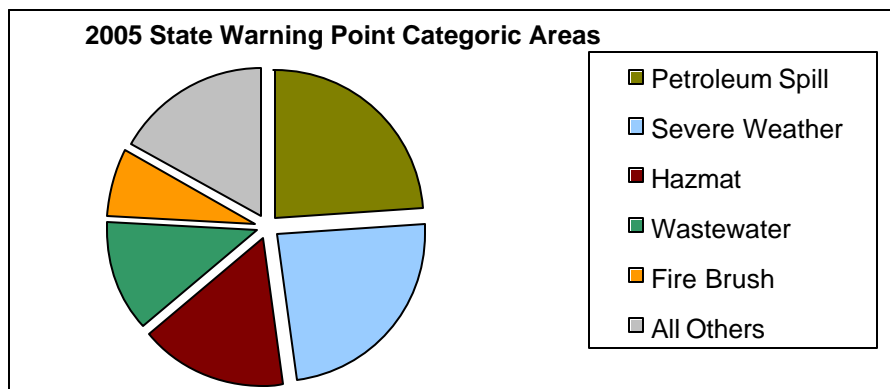
In May 2005, Clean Water Fund took a close look at the issue of sewage overflows in the state of Florida, producing a report: *"Are We Wading in Waste?"* to test whether or not the public could easily access information about sewage spills in their community that could pose public health concerns. Unfortunately, the answer to that question was no. In fact, no local or state government official could easily answer that question today any better than they could a year ago.

Last year's report uncovered major deficiencies in overflow event reporting and standardization on a county-by-county basis. Findings also included an over-emphasis on the part of utilities to rely on "common protocol" for reporting in the absence of clear regulatory procedures. Timely public access to information about sewage spills was an additional major shortcoming in current reporting methods, between utilities, county and state health departments, and the State Department of Environmental Protection (DEP). For calendar year 2004, we examined data from Florida's 67 counties and found the total overflows estimated at ***over 55.8 million gallons of raw and partially treated sewage spilled into Florida waterways, in many instances causing beach closures.***

In 2006, we focused our efforts on a sampling within nine counties, selected by their size, geographic location, and 2005 reporting data. The goal was to see if the sample counties implemented any of Clean Water Fund's recommendations or made any changes that would result in the public having more confidence in the safety of their recreational waters. Additionally for this report, within each of the nine counties, one municipality and one private treatment facility was contacted, at random, to gauge the responses of smaller facilities. We specifically asked questions on hurricane preparedness and the state of lift stations, after learning in 2005 that hurricanes are a contributing factor in improper releases of wastewater.

The information on statewide spills in this document occurred during the 2005 calendar year, and as in the previous report, spill information was taken from the Division of Emergency Management's State Warning Point (SWP) database. The SWP remains the only clearinghouse of county-by-county data on a variety of potentially dangerous material releases and incidences where the state was notified through a toll-free hotline (used by utilities or public witnesses who became aware of a spill of some kind). For 2005, in addition to SWP data, overflow information was obtained through Freedom of Information Act (FOIA) requests sent directly to all counties to compare the county totals to those of the state. This report does not draw from and compare county and state information rather all information presented is entirely from the SWP. Wastewater events constitute 12 percent of total reports to the SWP.

## “SWP” Chart of Reported Categories



**Specific spill volume information obtainable from the SWP revealed the range of possible wastewater/sewage spills reported to the state for 2005 was between 44.6 and 50.3 million gallons in 1,090 reported events.** This equates to nearly 200 Olympic sized swimming pools of sewage and wastewater spilling in communities and waterways throughout Florida last year.

While the total spill data for 2005 is slightly lower than the reported spills for the previous year, CWF’s conclusion is that this figure does not accurately reflect the actual amount of wastewater spills due to the number of reported events where an unspecified amount was reported and where major known events were absent from the SWP, as described below.

## II. CURRENT OVERFLOW REPORTING LAWS

The details of Florida’s current overflow reporting laws are outlined in Clean Water Fund’s 2005 *Are We Wading in Waste?* however, one important guideline is found in Florida Rule 62-604.550, which states:

“Unauthorized releases of or spills in excess of 1,000 gallons per incident, or other abnormal events where information indicates that public health or the environment will be endangered, *shall be reported orally to the State Warning Point’s toll free number (800) 320-0519...*”

The Rule goes on to state what information the over 2,700 wastewater utilities should provide to the SWP. While many utilities follow this Rule, there is no mechanism of enforcement for those utilities not reporting to the SWP.

## III. QUESTIONS, EXAMPLES AND FINDINGS

### A. Gaps and Inconsistencies from 2004 to 2005

The nine counties and the nine cities within those counties that received questionnaires provided varied responses to the seven questions posed of them. ***It should be noted that no response came back from private-run facilities during the researching of this follow-up report, thus no further specific information could be listed for those facilities.*** This speaks to the difficulty in obtaining information from smaller, private facilities and is a further reflection of deficiencies in the availability of spill information at the local level. An average citizen inquiring about wastewater events at a

private facility would likely encounter great difficulty, which is significant since of the more than 2,700-permitted treatment facilities in Florida, 2,000 are privately owned. It should also be noted that it is typically unstated in the SWP data whether the event originated at or along the system of a public or private utility, rather only the city and county are often given in association with the spill.

Responsible public utilities that report all events they experience can be viewed in an unfavorable light compared to those that are not showing a frequency of spills. However, this can simply result from self-reporting diligence on behalf of facilities complying with full self-reporting. Private facilities whose information is more difficult to access may be experiencing as many or more spill events but not reporting.

Information on spills is also not available from a local centralized source, such as the county utility or public health department. County utilities typically do not have information on all utilities within their own county, only those under their direct control. This again forces any inquiry regarding spills at the local level to the state agencies, which, as will be described, lack complete records of sewage and wastewater events taking place over a year's time.

All nine counties did respond to the CWF questionnaire. All claim they do report spills to the DEM's State Warning Point, a majority indicating in writing that spills of 1,000 gallons or more are required to be reported, per the Florida regulation described above. Chart III.I below is a total listing of wastewater events reported to the SWP in 2005 from the nine counties sampled.

**Chart III.I State Warning Point (SWP) Reported Events**

| <b>County<br/>(Listed alphabetically)</b> | <b>Total wastewater events<br/>reported to State Warning Point<br/>(SWP) in 2005</b> |
|---|--|
| Broward                                   | <b>37</b>  |
| Hillsborough                              | <b>83</b>  |
| Miami-Dade                                | <b>22</b>  |
| Orange                                    | <b>62</b>  |
| Palm Beach                                | <b>43</b>  |
| Pasco                                     | <b>44</b>  |
| Pinellas                                  | <b>43</b>  |
| Sarasota                                  | <b>42</b>  |
| St. Lucie                                 | <b>14</b>  |

The nine-county sample represents **72 percent** of reported wastewater spill incidences among all 67 counties to the SWP.

Information reported on spills to the SWP is often anecdotal and unmeasured, again due to the lack of standardization of reporting. The following are two actual reported events, reprinted verbatim, as they appear in the SWP database and both are indicative of the current shortcomings in the accuracy of obtainable information. The first is a Broward county sewage spill reported on 7/5/05:

*“Caller advises of an ongoing sewage spill. Spill is reported to be in a local canal and is observed to be approximately 3 miles long. Upon investigation by the reporting party it appears to originate from a malfunctioning lift station and is still leaking at this time.*

*Unknown exactly how much has leaked but reporting party has advised this to be an extremely large spill. No further information is available at this time.*

Another event in Brevard County on 10/24/05 stated:

*“Titusville/Osprey Plant reported a spill of 35,000 to 3.5 million gallons of sewage into the Indian River.”*

The latter account represents a major discrepancy in the gallon-range shown (amounting to a nearly 3.46 million gallon difference in the possible volume of the overflow), while the former example of a 3-mile trail of sewage contains no measured estimate whatsoever. Also lacking in the accounts are descriptions of follow-up actions taken to remedy the spill or its cause. Clearly, these accounts demonstrate the degree of uncertainty present in the known volumes of sewage entering waterways and in potential contact with public users.

It is important to note that the State Warning Point **does not reflect total spills** occurring in Florida, only the number of events actually *self-reported* by agencies or the public. In fact, Clean Water Fund’s 2005 report highlighted (*Are We Wading in Waste? p.7*) a 250,000 gallon spill of raw sewage in Boynton Beach and Boca Raton, **however, this major spill from 2005 is nowhere to be found in the SWP data for Palm Beach County used to compile this follow-up report.**

The largest events actually appearing in the SWP from Palm Beach County in 2005 are two separate wastewater releases, both 25,000 gallons, both coincidentally in Boynton Beach and Boca Raton, respectively though in mid-March and mid-November. The unlisted, 250,000 gallon raw sewage spill in late March 2005 closed beaches for several days in the area and was reported on by the *Palm Beach Post* and *Sun-Sentinel*<sup>1</sup>, yet is absent from the State Warning Point database.

In the information CWF reviewed for Palm Beach County, there is a dramatic drop in the amount of wastewater spills from 2004 to 2005. In 2004, Palm Beach County reported *57 events totaling over 4.8 million gallons* of spilled wastewater and sewage. For 2005, the County dramatically dropped to just over *180,000 gallons during 43 events*, a 97 percent reduction in gallons-spilled. ***Clearly, the 2005 total for Palm Beach County is inaccurate considering one single event present in news media reports and in CWF’s 2005 report from last year, but absent in state spill data, accounts for more than all of the County’s alleged spills combined.***

Palm Beach was not the only County reporting drastic reductions in the amount of wastewater events from 2004 to 2005. Of the nine Counties emphasized in this report Broward, Miami-Dade, Pinellas, and St. Lucie Counties all saw significant drops in total volume of spills.

Hillsborough, Orange, Pasco and Sarasota Counties, in contrast, were on the rise. The accuracy of these changes is in doubt due to discrepancies illustrated in the Broward and Brevard examples above.

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<sup>1</sup> “Sewage Spill Closes Boca, Boynton Beaches”, *Sun Sentinel*, March 26, 2005.

CWF also factored into the assessment the varied types of spills revealed in the SWP data, ranging from raw sludge and sewage spills to many accounts of fully treated wastewater being dumped, requiring no clean-up actions (see Chart III.III). Events from the nine counties Clean Water Fund sent a questionnaire to, including a 2004 to 2005 comparison, is contained in Chart III.II below.

**Chart III.II Wastewater Incidents Reported to State Warning Point  
January 1 – December 31 2005**

| Counties     | Total Gallons (min) | # of Events | # of Events w/ Unknown Amt. | # of Events Attributed to Hurricanes | Hurricane Reported Gallons | Total Gallon Change 2004 to 2005 (+ / - ) |
|--------------|---------------------|-------------|-----------------------------|--------------------------------------|----------------------------|---|
| Broward      | 160,710             | 37          | 10                          | 1                                    | 12,000                     | (-) 100,890                               |
| Hillsborough | 2,985,285           | 83          | 6                           | 0                                    | -                          | (+) 367,483                               |
| Miami-Dade   | 2,051,367           | 22          | 4                           | 0                                    | -                          | (-) 668,921                               |
| Orange       | 3,190,670           | 62          | 6                           | 0                                    | -                          | (+) 1,813,870                             |
| Palm Beach   | 175,204             | 43          | 11                          | 0                                    | -                          | (-) 4,653,871                             |
| Pasco        | 21,486,340          | 44          | 3                           | 0                                    | -                          | (+) 10,305,440                            |
| Pinellas     | 182,405             | 43          | 3                           | 0                                    | -                          | (-) 1,587,057                             |
| Sarasota     | 1,770,250           | 42          | 4                           | 0                                    | -                          | (+) 1,151,587                             |
| St. Lucie    | 42,500              | 14          | 1                           | 0                                    | -                          | (-) 15,121,750*                           |
| <b>TOTAL</b> | <b>32,044,731</b>   | <b>390</b>  | <b>48</b>                   | <b>1</b>                             | <b>12,000</b>              | <b>(-) 8,494,109</b>                      |

\* The 2004 figure for St. Lucie County was largely attributed to a single intentional treated water release, which impacted the County's overall listing last year. Despite not being a sewage event, the information was listed in the SWP data and thus included in the 2005 report. The County's drop in events shown above is based off the comparison that keeps the original total (including the treated water event) for the county from last year's report compared to the 2005 data. This contributes to both the substantial drop for St. Lucie County and why the overall comparison shows a drop in the total volume of wastewater between 2004 and 2005.

Like Palm Beach County, Broward County shows a comparatively low volume of spills, again bringing into question the accuracy of SWP data. The account in Broward described on page 4 above, *where an unmeasured, three and a half mile long sewage spill was called-in*, again makes it entirely possible that this single event exceeds the entire reported total for Broward shown in Chart III.II. However, since no specific volume was determined for the three and a half mile overflow, the measurable total volume is markedly low for Broward County.

Also noticeable from Chart III.II, in the cases of Palm Beach and Broward County, is that both show the highest number of events where an unknown amount of wastewater was listed (21 such events), both having nearly twice as many "unknown" events compared to the other seven counties.

## **B. The Hurricane Factor Revisited**

Statewide in 2004, there were approximately 54 events attributed to hurricanes. **Of the nine county sample in 2005, only one event is expressly attributed to Hurricane Wilma, despite vast impacts to all South Florida counties in October 2005.** Five separate events in mid and late October described in Palm Beach County *could have* been the result of Hurricane Wilma, but no attribution is given. This is a significant issue CWF mentioned in last year's report, that when reporting to SWP it would be helpful to list attribution if the event was hurricane related. Miami-Dade County also leaves out any description of the storm having resulted in any spills. CWF questions

the assertion of the South Florida counties of Palm Beach, Broward, and Miami-Dade Counties, that they have drastically improved their ability to reduce overflow occurrences in 2005 with large hurricanes like Wilma having devastating impacts to the region.

Considering the duration and intensity of Hurricane Wilma in October 2005, it might be expected that hurricanes and resulting power loss would have an impact on lift station spill events, as was the case in 2004. Lift-station failure is one the most common causes for spills related to power outages caused by storm activity. Lift stations are distributed throughout a community's sewer system in places where gravity can no longer be the mode of conveyance for piped wastewater and sewage. The lift station draws up the material to a higher elevation to enable further transport along the system. CWF's questionnaire (see Appendix A) includes responses, from sampled counties and cities, as to the number of back-up generators available for use at lift stations. This is essential, for if power is lost, as it was for several weeks throughout South Florida in October after Hurricane Wilma, generators are the only means of assuring the function of lift stations thereby preventing major back ups.

Lift stations in many communities are cited near or within small municipal parks with playgrounds, which is an added concern as this increases the likelihood of child exposure to pathogens during a sewage back-up event. This prompts the question of whether the locating of small municipal parks has in fact been for the purpose of finding remaining public land to act as overflow catchments, rather than for optimizing safe recreational opportunities for Floridians and our children.

Since the state has no guiding regulations as to how many generators are appropriate for a utility to keep on hand, based on capacity or population served, there is no way of fully assessing how sufficiently prepared a utility is in this regard. Some major utilities from across the state have taken it upon themselves to voluntarily coordinate during natural disasters and other occurrences, one such collective known as FlaWARN initiates their own system of "utilities helping utilities" in the event of power outages and generator shortages<sup>2</sup>, but no state mandate initiates such cooperative action.

The frequency and duration of hurricanes over the past few years and the expected continuation of this trend has been a topic of much discussion among scientists and the media, with underlying implications to many sectors of Florida's economic engine. This increase in hurricane activity speaks to the urgency for resolution on many preparedness issues not the least of which relate to the matter of treatment capacity for sewage and wastewater and overflow prevention.

***“Lift stations in many communities are cited near or within small municipal parks with playgrounds, which is an added concern as this increases the likelihood of child exposure to pathogens during a sewage back-up event. This prompts the question of whether the locating of small municipal parks has in fact been for the purpose of finding remaining public land to act as overflow catchments, rather than for optimizing safe recreational locations for Floridians and our children.”***

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<sup>2</sup> Florida's Water/Wastewater Agency Response Network, [www.flawarn.org](http://www.flawarn.org)

### C. Singular Events Accounting for Massive Spills

Chart III.II also reveals Pasco County to have far and away the highest volume of wastewater overflows, though this again can be attributed almost entirely to one major event in Zephyrhills that was reported on July 19, 2005:

*“Approx. 21,000,000 gallons of wastewater released in Zephyrhills due to a ruptured force main. The release has been ongoing for 42 days. The material drained into a nearby lake.”*

The location of this 42-day event in Zephyrhills is significant considering the area’s water withdrawals for bottling distribution, well known to most Floridians. However, no clean-up activities or other information is described for the event. Examples from last year and cited above, show the impacts to total overflow assessment coming from events that seem to be isolated but which can prove endemic, as learned in the case of an undisclosed sewage event in Sarasota last year<sup>3</sup>.

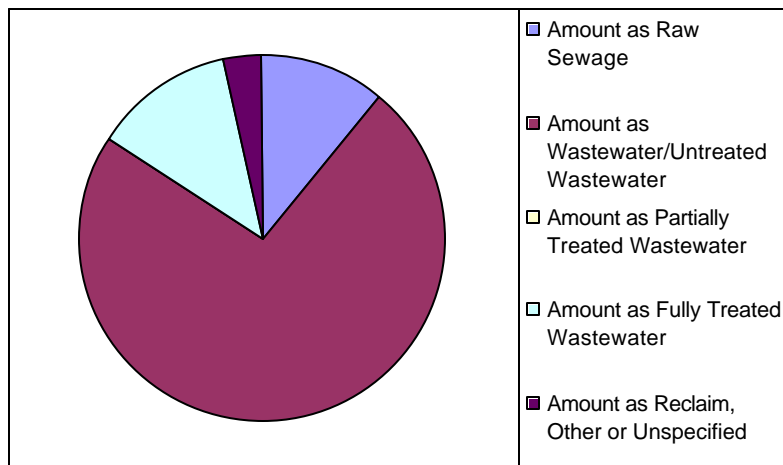
### D. Interpreting the Overflow Totals in the Sample

On the following page, Chart III.III provides the total amount of overflows for the nine sampled counties and the form of the spill (i.e., sewage, fully treated wastewater, untreated wastewater). These are the major extrapolations from the chart:

#### Top 3 Spills by County (in order by volume):

- Pasco County’s **44 events accounted for over 21.4 million gallons** of sewage and wastewater spills
- Orange County’s **62 events accounted for nearly 3.2 million gallons** of sewage and wastewater spills
- Hillsborough County’s **83 events accounted for nearly 3 million gallons** of sewage and wastewater spills

2006 Nine County Sample: Spills by Type (from Chart III.III)



<sup>3</sup> “City Kept Quiet About Sewage Spill Last Year”, *Sarasota Herald-Tribune*, March 15, 2005

**Chart III.III State Warning Point Spill Types by County  
January 1 – December 31, 2005**

| County        | Total Gallons     |                   | Amount as Raw Sewage |                  | Amount as Wastewater/<br>Untreated Wastewater |                   | Amount as Partially Treated Wastewater |      | Amount as Fully Treated Wastewater |                  | Amount as Reclaim, Other or Unspecified |                  |
|---------------|-------------------|-------------------|----------------------|------------------|---|-------------------|--|------|------------------------------------|------------------|---|------------------|
|               | Min.              | Max.              | Min.                 | Max.             | Min.  | Max.              | Min.                                   | Max. | Min.                               | Max.             | Min.                                    | Max.             |
| Broward       | <b>160,710</b>    | <b>165,010</b>    | 8,600                |                  | 135,860                                       | 136,160           | 3,500                                  |      | 6,000                              | 10,000           | 6,750                                   |                  |
| Hillsborough  | <b>2,985,285</b>  | <b>3,005,310</b>  | 240,235              | 240,250          | 463,350                                       | 473,360           | -                                      |      | 1,496,800                          | 1,506,800        | 784,900                                 |                  |
| Miami-Dade    | <b>2,051,367</b>  |                   | 916,593              |                  | 1,133,674                                     |                   | -                                      |      | 100                                |                  | 1,000                                   |                  |
| Orange        | <b>3,190,670</b>  | <b>3,194,675</b>  | 1,192,900            |                  | 93,100  |                   | -                                      |      | 1,720,000                          |                  | 184,670                                 | 188,675          |
| Palm Beach    | <b>175,204</b>    | <b>181,204</b>    | 40,500               | 45,500           | 121,200                                       | 122,200           | -                                      |      | 8,300                              |                  | 5,204                                   |                  |
| Pasco         | <b>21,486,340</b> | <b>21,491,840</b> | 40,200               | 40,700           | 21,321,640                                    | 21,326,640        | -                                      |      | 100,000                            |                  | 24,500                                  |                  |
| Pinellas      | <b>182,405</b>    | <b>187,405</b>    | 66,947               |                  | 107,178                                       | 112,178           | 2,300                                  |      | -                                  |                  | 5,980                                   |                  |
| Sarasota      | <b>1,770,250</b>  | <b>2,025,450</b>  | 1,031,700            | 1,281,700        | 28,700  | 28,900            | -                                      |      | 702,850                            | 704,850          | 7,000                                   | 10,000           |
| St. Lucie     | <b>42,500</b>     |                   | 18,300               |                  | 17,500  |                   | -                                      |      | -                                  |                  | 6,700                                   |                  |
| <b>TOTALS</b> | <b>32,044,731</b> | <b>32,344,761</b> | <b>3,555,975</b>     | <b>3,811,490</b> | <b>23,422,202</b>                             | <b>23,443,712</b> | <b>5,800</b>                           |      | <b>4,034,050</b>                   | <b>4,050,050</b> | <b>1,026,704</b>                        | <b>1,033,709</b> |

Chart III.III shows that available data distinguishes between various types of wastewater events, ranging from raw sewage spills to partially treated and fully treated releases. Min/Max ranges indicate where events were reported as estimates within a range of gallons (e.g., 5000 to 7000 gallons spilled) and then totaled.

As mentioned the 42-day wastewater event in Zephyrhills accounts for nearly the entire total for Pasco and is the reason they experienced, far and away, the largest spills in the sample of counties (over six and a half times more than Orange and Hillsborough Counties, which experienced the next highest volume of overflows in 2005). In fact, over 65 percent of the total volume in this sample can be attributed to the Zephyrhills event, thus explaining the proportion of wastewater to raw sewage spills.

## E. Responses to the 2006 Clean Water Fund Questionnaire

Charts III.IV and III.V on the following pages reveal the questions and responses from County and City utilities to our 2006 questionnaire. As mentioned earlier in this report, no private facilities returned requests.

These are the major extrapolations from the chart:

- **All counties claim to report to the State Warning Point** for spills of 1,000 gallons or more, per Florida regulations;
- **Four counties** (Broward, Orange, Palm Beach, Pasco) **indicated that they had in fact made changes to their overflow reporting form, an indication that certain recommendation from CWF's 2005 report were heeded.** Of note is Pasco County adding notification of their Health Department to their reporting form. Descriptions of other specific form changes can be found in the Appendix B.
- **Of the nine counties sampled, all but two (Hillsborough and St. Lucie) claimed to report spill information to the Department of Health ;**
- **Four of the nine counties sampled claim to provide information on spills in a user-friendly manner to the public.** The modes of providing the information stated by these counties is available in the Appendix;
- **All sampled counties with the exception of Hillsborough record the local waterway impacted by a spill.** (Hillsborough County follows-up on information only by the request of DEP and/or the Hillsborough County Environmental Protection Commission);
- **All counties possess back-up generators**, for both their facility and for lift stations, in the event of power outages. **The number of back-up generators varies county-by-county, but no guidelines are enforced for the number of back-up generators appropriate to possess.** The county with the lowest population, St Lucie, maintains the fewest generators (5 portable) and Miami-Dade, the most-populated county, possesses 160 back-up generators. The following chart is derived from Chart III.IV and lists the percent of generators to lift-stations by county, from highest to lowest, thus indicating a general comparative ratio of how equipped the sampled counties are for power-outages. Also included is county population\*:

| County       | Population | % Generators to Lift Stations |
|--------------|------------|-------------------------------|
| Palm Beach   | 1,268,548  | 18.5 %                        |
| Miami-Dade   | 2,376,014  | 16 %                          |
| St. Lucie    | 241,305    | 10.9 %                        |
| Pinellas     | 928,032    | 9.6 %                         |
| Orange       | 1,023,023  | 6.9 %                         |
| Pasco        | 429,065    | 4.6 %                         |
| Hillsborough | 1,132,152  | 2.4 %                         |
| Sarasota     | 366,256    | 1.6 %                         |
| Broward      | 1,777,638  | 1-2 %                         |

\* Population listing is 2005 Census estimate for the entire county not necessarily the population served by the utility/treatment facility

**Chart III.IV Sampled County Responses to 2006 Clean Water Fund Questionnaire**

|  | <b>Broward</b>                          | <b>Hillsborough</b>                            | <b>Miami-Dade</b>  | <b>Orange</b>   | <b>Palm Beach</b>                       | <b>Pasco</b>     | <b>Pinellas</b>                        | <b>Sarasota</b>  | <b>St. Lucie</b>       |
|--|---|--|--------------------|-----------------|---|------------------|--|--|------------------------|
| <b>1) Do you report spills to the State Warning Point?</b>   | Yes                                     | Yes  | Yes                | Yes             | Yes                                     | Yes              | Yes                                    | Yes  | Yes                    |
| <b>2) In 2005, did you make any changes in your spill reporting forms? If yes, please explain (see Appendix B).</b>                  | Yes                                     | No   | No                 | Yes             | Yes                                     | Yes              | No                                     | No   | No                     |
| <b>3) Do you provide all spill information to the County Health Department?</b>  | Yes                                     | No   | Yes                | Yes             | Yes                                     | Yes              | Yes                                    | Yes  | No                     |
| <b>4) Do you provide your spill information in a user-friendly format to the public?</b>   | NA                                      | Yes  | Yes                | No              | No                                      | Yes              | Yes                                    | No   | No                     |
| <b>5) Do you record the local waterway or water body impacted by a spill?</b>  | Yes                                     | No   | Yes                | Yes             | Yes                                     | Yes              | Yes                                    | Yes  | Yes                    |
| <b>6) a. Does your facility have back-up generators? b. If yes, how many?*</b>   | a. Yes<br>b. NA                         | a. Yes<br>b. 5                                 | a. Yes<br>b. 1     | a. Yes<br>b. 78 | a. Yes<br>b. 126                        | a. Yes<br>b. 8   | a. Yes<br>b. 12                        | a. Yes<br>b. all facilities                              | a. Yes<br>b. 5         |
| <b>7) a. How many lift stations, if any, does your facility operate? b. Of those lift stations, how many have backup generators?</b> | a. 6,000<br>b. 1-2 % (approx. 60 – 120) | a. 637<br>b. 9 mounted, 1 mobile, (5 on order) | a. 1,000<br>b. 160 | a. 654<br>b. 45 | a. 680<br>b. 76 stationary, 50 portable | a. >500<br>b. 23 | a. 291<br>b. 28 stationary, 2 portable | a. 550<br>b. 9 stationary, unnumbered portable available | a. 46<br>b. 5 portable |

**Chart III.V Sample City Responses to 2006 Clean Water Fund Questionnaire**

|  | Pompano Beach                             | Tampa                         | Miami Beach     | Orlando   | Wellington      | New Port Richey                          | Clearwater           | City of Sarasota | Port St. Lucie |
|--|---|-------------------------------|-----------------|---|-----------------|--|----------------------|------------------|----------------|
| <b>1) Do you report spills to the State Warning Point?</b>   | Yes                                       | Yes                           | Yes             | Yes   | Yes             | Yes                                      | Yes                  | NR               | NR             |
| <b>2) In 2005, did you make any changes in your spill reporting forms? If yes, please explain (see Appendix B).</b>                  | Yes                                       | Yes                           | No              | Yes   | No              | Yes                                      | No                   | NR               | NR             |
| <b>3) Do you provide all spill information to the County Health Department?</b>  | Yes                                       | Yes                           | Yes             | Yes   | Yes             | Yes                                      | Yes                  | NR               | NR             |
| <b>4) Do you provide your spill information in a user-friendly format to the public?</b>   | No  | Yes                           | Yes             | No/Yes  | No              | Yes                                      | No                   | NR               | NR             |
| <b>5) Do you record the local waterway or water body impacted by a spill?</b>  | Yes                                       | Yes                           | Yes             | Yes   | Yes             | Yes                                      | Yes                  | NR               | NR             |
| <b>6) a. Does your facility have back-up generators? b. If yes, how many?*</b>   | N/A*                                      | a. Yes<br>b.                  | a. Yes<br>b. 12 | a. Yes<br>b. 5-6  | a. Yes<br>b. 33 | a. Yes<br>b. 7                           | a. Yes<br>b. 28      | NR               | NR             |
| <b>7) a. How many lift stations, if any, does your facility operate? b. Of those lift stations, how many have backup generators?</b> | a.73<br>b. 5<br>stationary,<br>9 portable | a. 220<br>b. 9 and 24<br>port | a. 22<br>b. 12  | A 205<br>b. 30<br>portable<br>205 (1 for<br>each lift<br>station) | a. 98<br>b. 2   | a. 65<br>b.<br>2stationary,<br>7portable | a. 79<br>b. 5 onsite | NR               | NR             |

\* N/A – Broward County treats wastewater for Pompano Beach  
NR- No Response

#### IV. CURRENT PROBLEMS AND RECOMMENDATIONS

Sadly, almost all of the recommendations described in CWF 2005 report still apply to the current situation in Florida. While the need for addressing the overburdened sewer systems of the state through such programs as the State Revolving Fund is critical, the non-major funding issues is the focus of CWF's continued policy focus. Many of the recommendations listed below can be administratively or legislatively addressed. An hour of modification of a bureaucratic form and an agreement amongst ALL utilities that they will communicate with the health departments and make information more user-friendly for the public would greatly improve the current situation.

The approach to reporting, as conducted today, is clearly leaving significant gaps in accuracy, rendering a conclusion that the disrepair of many of the state's wastewater infrastructure is proportionate to that of the reporting process itself. Listed below are deficiencies in current procedures and outcomes followed by CWF's recommendation to remedy the issue(s).

##### **Problem 1: Consistency of State and Local Information.**

While the State Warning Point provides a view into the course of events over a one-year period that are *voluntarily reported* there are numerous flaws in the completeness of the data, as outlined in earlier examples where known spills reported in news media are not present in SWP data. This means that accurate evaluation of data is currently impossible.

**Recommendation:** The state should require reporting of all spills below and over 1,000 gallons within each County, and a designated place should be established where this data is compiled for the entire county's spills (both from public and private utilities). Each of the 67 counties should also be required to verify the reporting information contained in SWP as to the volume of wastewater events they have on record, thus ensuring the accuracy of information. Further right-to-know measures could then include an annual mailing from this centralized/county body, as is currently done with water quality reporting, thereby disclosing overflow information to the utility users and the public in a transparent manner.

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##### **Problem 2: Public Access to Information.**

Timely information on spills is not available on any state agency's website. Only upon special request can SWP data be viewed. In addition, the public should be able to go to its county government to access local sewage spill information.

**Recommendation:** For the public and for policy-makers to have a clearer idea of how their community's infrastructure is handling sewage and wastewater and whether events are on the rise, the counties and state should establish a website (CWF recommended a Florida Safe Beach website in last year's report) or a component of a current site where such information is divulged and viewable in real time.

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##### **Problem 3: Lacking Standardization of Reporting.**

There remains inconsistency between counties as to how and in what form (e.g., reporting forms) data is given for overflow events. Also non-specific descriptions remain common, such as "unknown amount" and "nearby waterway affected," which risks public safety.

**Recommendation:** A standardized reporting form should be issued to all 67 Florida counties indicating a preferred measurement (e.g., gallons) as well as the manner by which clean-up actions are described and catalogued and full descriptions on the waterways receiving the overflow. While CWF hoped after discussions with large county utilities in 2005 they would be pro-active and make such recommendations, we now believe it will have to be legislatively or administratively implemented. Clean Water Fund would like to see standardization for forms on date, time, location, amount, cause, uniformity in units of measurement, and clean-up action for spills.

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**Problem 4: Self-Reporting Leads to False Perceptions.**

Current regulations still rely on self-reporting which means that those facilities that comply and report all occurrences can be perceived as having the most recurring and urgent problems, when they are honoring the protocol other utilities might simply be ignoring for fear of repercussions or permit revocation.

**Recommendation:** The Department of Environmental Protection in conjunction with the State Legislature needs to increase enforcement of reporting negligence, and levy greater fines for utilities failing to report spills.

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**Problem 5: Hurricane Preparedness.**

While strikingly fewer overflow events were attributed to hurricanes in 2005 compared to 2004, there are still lacking measures in knowing how each community should best be prepared for the storm season. Chart III.IV contains information of lift stations and back-up generators, yet a matrix for knowing what number of back-up generators is necessary to prevent lift-station related spills is lacking.

**Recommendation:** The state of Florida should implement guidelines for all treatment facilities (public and private) detailing the number of back-up generators necessary for the utility or facility, based on the number of lift stations, the capacity of the system, and the population served.

*With respect to this issue CWF also remains skeptical of Palm Beach and Broward County's 2005 SWP reported information, considering the size and duration of Hurricane Wilma. Further exploration on this matter is warranted.*

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**Problem 6: Large and One-Time Events Accounting for a Majority of Spills Within Counties.**

In CWF's 2005 and 2006 reports we found the occurrence of singular, high-volume events as a major contributor to assessing the overflow data within counties statewide. Though cumulative releases of wastewater and sewage have equally damaging impacts to health and the environment, these enormous incidents should not occur with proper capacity and maintenance control.

**Recommendation:** CWF implores those counties experiencing large, aberrational events to root out and address the cause(s). The DEP and other state partners must also be examining the cause immediately upon discovery of all spills of an extraordinary nature. By providing no description of clean-up activities, no discernable resolution to the cause can be ascertained. In many instances the cause is simply overburdened infrastructure being pushed beyond capacity by too many users. Programs such as the Clean Water State

Revolving Fund provide low-interest loans to communities experiencing wastewater infrastructure problems, which can be a remedy in certain cases. However, contractor or operational error can also cause the disturbance, but the current reports available for review do not make clear the causes and thus cloud what the suggested solutions might be. Utilities should allot a portion of their annual capitol to perform “smoke-screening” or evaluative surveys of their entire systems to locate potential areas of deficiency in operational maintenance or infrastructure capacity to avoid both small and large overflow events. If a utility cannot manage the costs of such evaluation based on economic factors, the state should allocate funds to assist.

Further detailed recommendations provided in last year’s report should be considered and taken-up by the Florida legislature as a way of further addressing these and other shortcomings outlined in Clean Water Fund’s research into wastewater and sewage spills across the state over the past two years.

## **V. Conclusion**

The reality in Florida is that outdated and overburdened wastewater infrastructure is colliding with the state’s rampant population growth, contributing to the regularity of statewide sewage and wastewater overflow events. The increase in both users and in construction activity results in capacity-related leaks and accidental contractor damage, respectively, both signs of Florida’s unprecedented growth as causing additional impacts. The state and local utilities must understand this relationship in how planning and growth management measures are being adopted. Without a comprehensive assessment and in places a complete overhaul of operational and physical systems, the state’s predicament will not improve and the public’s well being will be further compromised.

Every county should track and centrally compile information on wastewater spills to allow citizens a transparent view into their community’s situation, and to ensure local governments can ascertain how they are handling this complex problem. Only then can the determination be made as to whether physical repairs or procedural policy need to be rectified.

The information obtainable from the state’s SWP is unreliable and does not allow for true empirical evaluation of any observable overflow trends, due to the glaring holes in the data that has been outlined throughout this report. However, it remains the one source for information and it is the hope of Clean Water Fund that our observations and comments on this data, in combination with our questionnaire, are less an indictment of current affairs and more a call to action on the part of local municipalities and the state agencies tasked with ensuring the advancement of public health and environmental conditions in Florida.

## Appendix A: Sample Of 2006 Questionnaire

To Whom It May Concern:

Clean Water Fund (CWF) is a non-profit environmental organization dedicated to the protection of our water and public health. In May 2005, CWF released a report on sewage overflows in Florida. The report contained a series of recommendations on ways to improve reporting and dissemination of information to the public.

We are in the process of preparing our 2006 Report and would appreciate your cooperation by taking a few minutes to answer the following questions and return it to **Carrie Berger cberger@cleanwater.org or fax this information to (561) 417-9395 no later than APRIL 17, 2006**

1. Do you report spills to the State Warning Point? YES NO

Comments:

2. In 2005, did you make any changes in your spill reporting forms? YES NO

If YES, please explain:

3. Do you provide all spill information to the County Health Department?

YES NO

4. Do you provide your spill information in a user-friendly format to the public? YES NO

If YES, what method do you use:

a) internet YES NO

b) e-mail YES NO

c) public notification YES NO

5. Do you record the local waterway or water body impacted by a spill?

YES NO

6. Does your facility have back-up generators? YES NO

If, YES -- how many?

7. How many lift stations, if any, does your facility operate?

Of those lift stations, how many have backup generators?

If you have any questions or need clarification, please contact Carrie Berger at (561) 417-9995 or cberger@cleanwater.org

Sincerely yours,

Kathleen E. Aterno  
State Director

## Appendix B: Detailed Responses from Charts III.IV and III.V, Question 2

The following counties/cities responded (in Question 2) to the 2006 Clean Water Fund questionnaire that they had made changes to their sewage spill reporting form. Those counties that made no changes are not listed here, but are shown in the charts on pages 14 and 15.

Responses are shown as they appeared in faxed or emailed responses, or as taken by CWF researchers over the phone.

Question 2. *In 2005, did you make any changes in your spill reporting forms? If yes, please explain:*

| <b>County (from sample)</b> | <b>Response</b>  | <b>CWF 2005 Recommendation ?</b> |
|-----------------------------|--|----------------------------------|
| Broward                     | Updated with hurricane-specific details (after last season)                                    | Yes                              |
| Pasco                       | Added Health Department to Form  | Yes                              |
| Palm Beach                  | Added a chronology of events and laboratory information  | Yes                              |
| Orange                      | Information has been added on reporting procedure and removed columns/rows that were utilized. | No                               |

| <b>City (from sample)</b> | <b>Response</b>   | <b>CWF 2005 Recommendation ?</b> |
|---------------------------|---|----------------------------------|
| Pompano Beach             | Added additional signature lines.   | No                               |
| New Port Richey           | New contact names and numbers:<br>1) For local FDEP office<br>2) Created Electronic Form  | No                               |
| Orlando                   | Cause of overflow<br>Correction Measurement<br>Approximate amount,<br>Approximate amount recovered,<br>Approximate amount that entered waterway<br>Comments section | Yes                              |
| City of Tampa             | To improve form and supply accurate information<br>(no specifics given)   | NA                               |

## Appendix C: Detailed Responses from Charts III.IV and III.V, Question 4

The following counties/cities responded (in Question 2) to the 2006 Clean Water Fund questionnaire that they do provide information on spills in a user-friendly format for the public. Those counties that made no changes are not listed here, but are shown in the charts on pages 14 and 15.

Responses are shown as they appeared in faxed or emailed responses, or as taken by CWF researchers over the phone.

*Question 4. Do you provide your spill information in a user-friendly format to the public? YES NO*

*If YES, what method do you use:*

- a) internet      YES      NO*
- b) e-mail        YES      NO*
- c) public notification YES NO*

| <b>County (from sample)</b> | <b>Response</b> | <b>Manner of Notification</b>   |
|-----------------------------|-----------------|---|
| Hillsborough                | Yes             | Public notification – depending on event, press release, posting of signs, door-to-door delivery of notices |
| Miami-Dade                  | Yes             | Public notification   |
| Pasco                       | Yes             | If situation warrants – public notification   |
| Pinellas                    | No              | Not required, but spill locations are posted  |

| <b>City (from sample)</b> | <b>Response</b> | <b>Manner of Notification</b>                 |
|---------------------------|-----------------|---|
| Tampa                     | Yes             | Public notification                           |
| Miami Beach               | Yes             | Internet and public notification              |
| Orlando                   | No              | Public notification if directly impacted      |
| New Port Richey           | Yes             | Public notification, *media - when applicable |



