



2006-2007 SANTA CLARA COUNTY CIVIL GRAND JURY REPORT

SECURITY LEAKS AT WATER TREATMENT PLANTS

Summary

The Santa Clara Valley Water District (District) has three locations where untreated water is purified to drinking quality standards. These plants are the Berryessa Water Treatment Plant, the Santa Teresa Water Treatment Plant, and the Rinconada Water Treatment Plant. On a tour of the District's Santa Teresa Water Treatment Plant, the members of the 2006-2007 Santa Clara County Civil Grand Jury (Grand Jury) were informed that the only time security guards were on duty was weekdays during the day. This raised a concern that Rinconada and the other two water treatment plants might be vulnerable to vandalism and terrorism when the guards were not present. As a result of this concern, the Grand Jury pursued an investigation of the security of the District's three plants. The investigation determined that there are serious deficiencies in the security of the plants that require immediate attention. This report discusses one aspect, the security of the perimeter of the plants.

The Grand Jury interviewed District management personnel, toured the Rinconada plant, and examined documents relevant to security issues and budget. This examination revealed that the District has taken appropriate steps to protect its overall system in the event of a Department of Homeland Security (DHS) announced threat elevation. The District has a long-range plan to address the issues raised by the DHS; however, the District lacks adequate protection to prevent a terrorist attack that may occur without DHS warning or to contain a surprise incursion into the plants.

The Grand Jury recommends that the District's announced timeline for implementing the Plan be shortened and that the related management priority score, a management tool used to establish the priority of funding or projects, be increased.

Current procedures call for the guards or the plant operators to call 911 in the event of an unauthorized entry into the plant area. Therefore, there is a dependence on local law enforcement for a rapid response to an incursion. In light of the need for this critical support, the Grand Jury recommends that written agreements between the District, the San Jose Police Department, and the Los Gatos Police Department be entered into to provide a priority response to a 911 call from any of the District's facilities. The Grand Jury also recommends that the District provide security guards for the three plants 24 hours per day, 7 days per week and that these security guards patrol the perimeter of the plants, as is required by the District's established procedures.

Background

A 2005-2006 Civil Grand Jury report entitled, “The Santa Clara Valley Water District—What’s Beneath the Surface?” states:

The District was created by the Legislature under the Santa Clara Valley Water District Act, California Water Code Appendix, Chapter 60 (District Act), as a Special Water District with an independent Board of Directors...

...The SCVWD has responsibility as the County’s principal water resource agency for supplying wholesale water, water treatment, flood protection, and watershed stewardship. The District’s jurisdiction encompasses the County’s 1,300 square miles. It serves the fifteen cities and 1.8 million residents in the County. The District resells water to thirteen retailers, five private companies and eight public agencies...

...The District operates and maintains ten reservoirs, three sub-basins or aquifers, three water treatment plants, three pumping stations, a hydroelectric plant, eighteen groundwater recharge facilities, and an extensive water distribution system

The District facilities have been identified by DHS as a Key Asset and Critical Infrastructure. As such, they have been subject to a DHS threat assessment. The District has been required to plan and implement the strategies determined by DHS to protect these assets. The District has created the plan and is implementing it over the next several years. However, the Grand Jury, during their recent tour, identified one additional area of vulnerability, specific to the plants, that has not been corrected—the protection of the perimeter of the plants.

Discussion

This report is limited to an investigation and discussion of one aspect of the security of the District: the prevention of incursions through the perimeter of the three plants. Such incursions could place the operation and equipment of the plants in jeopardy and would threaten Santa Clara County’s drinking water.

At the beginning of the investigation, the Grand Jury accessed two of the District’s web pages concerning security. These stated that there was an “Around-the-clock presence of security guards at all water district treatment plants.” However, this was in contrast to what the Grand Jury had been told by a District official while on their tour. As soon as the Grand Jury made the District aware of the difference between the web pages and their actual practice, those lines were removed from the web pages. During an investigative tour, a Grand Juror was able to park a vehicle next to the gate of the Berryessa plant, walk around the open gate with a camera taking pictures of the facility, while the guard in the kiosk ignored him. Later, the Juror was able to walk around outside the perimeter fence with a camera without being challenged.

No governmental agency requires the District to have guards at their facilities; nevertheless, the District has chosen to use guards at their plants. The guards are not District employees, but are provided through a contract with Acufacts Security (Acufacts), a private security agency.

Under a DHS Yellow Alert, the Acufacts guards, who are stationed at the entrance gates in guard kiosks, control access to the plants. The Grand Jury was told that their function is limited to controlling access through the gates and that they are not assigned to the protection of other areas of the perimeter, the interior areas of the plant, or to intercepting unauthorized persons entering the plant through any means other than the gate. However, a District procedure states: "...To identify the procedures to be utilized when *conducting foot patrols of the entire site...*[emphasis added]."

The guards have no surveillance equipment such as video cameras or fence intrusion alarms. District management has stated, "Guards are not there to stop terrorists." Should an extraordinary security situation arise, the guards are instructed to call 911 and request help from local law enforcement agencies. In response to the question, "With what manpower would local law enforcement respond?" District management said, "One car." No written agreements exist between the District and local law enforcement agencies to give priority to a 911 call from any of the plants.

The Grand Jury was told that Acufacts guards' duty is generally from 8:00 a.m. until 6:00 p.m. on weekdays. No guards are assigned to the plants from 6:00 p.m. until 8:00 a.m. the next day or on weekends.

If the DHS alert level were raised to Orange or Red, additional guards would be assigned to the plants on a 24 hours per day, 7 days per week basis. The guards would then have augmented duties. When asked how long it would take to obtain additional guards, a District manager responded, "Hours."

The District depends on DHS and other sources to notify it when there is a suspected terrorist event. A surprise incursion by terrorists or vandals could produce significant damage in a short amount of time. The Grand Jury found that a long-range Plan to resolve the issue of perimeter security exists, but that the long timeline and the relatively low priority for this Plan make the plants vulnerable. The perimeter of the plant is left vulnerable both day and night because of the small number of security guards assigned to each plant, their restricted hours of duty, the limitation of guards to weekdays, and the guard's assignment to a fixed position in a kiosk.

Surveillance cameras are present at all plants but they do not specifically cover the perimeter fencing. Although the ten cameras at the Rinconada plant can be remotely rotated to view a small portion of the fencing, the perimeter coverage is incomplete. The cameras are not equipped for night vision and the lack of lighting of the coverage areas makes them ineffective at night. The two monitors for the cameras are in the plant control room and the responsibility for monitoring them is assigned to the two plant operators. The control room is not staffed 24 hours a day because the

operators are frequently away from the room on routine duties or responding to problems at the plant. Thus, there are times when the video surveillance system goes unmonitored.

The operators do not have continuous, automatic monitoring of all the surveillance cameras. The camera views are not continuously sequenced nor are they automatically panned (rotated) to increase the viewing area. Rather, the operators must stop their normal operating duties, manually select each camera to be viewed, and then manually pan the camera. The consequence of this manual operation is that critical areas monitored by surveillance cameras may go unobserved. With an automatic system the operators, when in the control room, merely need to look at monitors while performing their other duties and conduct a complete surveillance of the plant.

The interior of the main building at the Rinconada plant is easily accessible by any person determined to gain entry. District personnel reported that forced entry through the front door of the main building of the plant “would probably not trigger an alarm.” There are few security measures inside the building. The control room, the chlorinator room, and other critical equipment areas become vulnerable should an intruder gain access to the interior of the main building. Under ordinary circumstances, in the evenings and on the weekend, the only personnel on site are the plant operators. Should a security breach occur, they, like the daytime security guards, can only respond by calling 911.

The District has approved a \$6,025,000 Water Treatment Plants Security Improvement Plan (Plan). The Plan provides for increased security of the perimeter of the plants. However, during periods of low DHS threat alerts (Low, Guarded, or Elevated) the Plan is lacking in two areas. It does not provide for increased security patrols, nor does it provide for a strengthened response to an incursion.

The planning and design phases of the Plan extend from Fiscal Years (FY) 2006 through FY 2009, a period of four years. The Plan has construction starting in FY 2009, a four-year delay in implementing the needed improvements. The District’s *FY-08 Draft CIP Project List—Funding* gives the Plan a priority score of only 57 out of a possible score of 100. CIP stands for Capital Improvement Program. The priority score is based upon a risk assessment analysis conducted by the District.

Conclusions

Although the District has addressed terrorist threats to the plants by preparing action plans and security improvement plans, the plans do not address those attempted acts of vandalism and terrorism that may occur without warning. At night and on weekends, the security of the perimeter of the plants and the main building depends upon the plant operators and local law enforcement. Without adequate perimeter breach detection equipment, unauthorized persons entering a plant’s area undetected could cause major damage to the plant before local law enforcement could respond. There is

a need for an increased number of security personnel patrolling each plant on an around-the-clock basis.

The Grand Jury finds that leaving the plants vulnerable for four more years to vandalism or a terrorist attack that may occur without warning is too long. As pointed out in a news report by television station KPIX Channel 5 on May 8, 2007, during their "Eyewitness News" 5 p.m. newscast, the DHS is aware that there are unknown, small, independent cells of terrorists living in American cities. The same news report stated that, because of the size and independence of these small groups, they are capable of quick action that may occur without the DHS being alerted. The Grand Jury also finds that given the nature of the threats, the identification of the plants as Key Assets, and the status of the current security measures, the CIP priority score is too low in addressing the potential threats.

Findings

The following findings were reviewed with the subject agency:

- F1:** The District has identified areas of vulnerability to terrorism and vandalism at its plants and has developed a long-range Plan to address these vulnerabilities.
- F2:** The timeline for resolving all of the identified areas of vulnerability is four years.
- F3:** The District's 2006/2007 Capital Improvement Program priority score for resolving all of the identified areas of vulnerability is a score of 57 out of a maximum priority score of 100, based upon a risk-assessment analysis conducted by the District.
- F4:** The District does not have a rapid response plan for surprise incursions into their plants other than calling 911.
- F5:** There are no written agreements between the District, the San Jose Police Department, and the Los Gatos Police Department for a priority response to a 911 call from any of the District's plants.
- F6:** Security guards are generally on duty during the weekdays for eight hours and are posted in fixed positions. They do not patrol the perimeter of the plants as specified in the District's procedures. Night and weekend security for the plants is delegated to the control room operators at each plant as a secondary responsibility.

Recommendations

The 2006-2007 Civil Grand Jury recommends that the Santa Clara Valley Water District take the following actions:

- R1:** No recommendation
- R2:** The timeline for implementing the Water Treatment Plants Security Improvement Plan should be shortened to a maximum of two years.
- R3:** The priority score for implementing the Water Treatment Plants Security Improvement Plan should be substantially raised.
- R4:** The District should coordinate with all local law enforcement agencies to develop a rapid response plan to plant incursions.
- R5:** The Santa Clara Valley Water District should enter into written agreements with the San Jose Police Department and the Los Gatos Police Department that will provide the highest priority response to a 911 call from any of the District's water treatment plants.
- R6:** The District should immediately increase the number of security guards at each plant. The security guards should be present 24 hours per day, 7 days per week at all plants, as specified in the District's procedures. The guards' duties should include patrolling the perimeter of the plants, as specified in the District's procedures.

Bibliography

- KPIX TV Channel 5, San Francisco. *KPIX Eyewitness News*, 5 p.m. newscast, May 8, 2007.
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- Santa Clara Valley Water District. Document #1, March 27, 2007.
- Santa Clara Valley Water District. Document #2, March 27, 2007.
- Santa Clara Valley Water District. Document #3, May 7, 2007.
- Santa Clara Valley Water District. *Frequently Asked Questions about Security*, http://www.valleywater.org/Water/Water_Quality/Protecting_your_water/Security_FAQ.shtm, (original) (accessed March 20, 2007).
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- Santa Clara Valley Water District Officer, Letter to Santa Clara County Civil Grand Jury, April 10, 2007.
- Santa Clara Valley Water District Officer, Letter to Santa Clara County Civil Grand Jury, May 1, 2007.
- Santa Clara Valley Water District Officer, Letter to Santa Clara County Civil Grand Jury, May 8, 2007.

Visitations and Interviews

November 29, 2006	Informational tour, Rinconada Water Treatment Plant.
March 21, 2007	Investigative visit, Berryessa Water Treatment Plant.
March 21, 2007	Interview, Santa Clara Valley Water District Managers.
April 20, 2007	Investigative visit, Rinconada Water Treatment Plant.
April 25, 2007	Interview, Santa Clara Valley Water District Managers.
May 1, 2007	Interview, telephonic, Santa Clara Valley Water District Managers.

PASSED and **ADOPTED** by the Santa Clara County Civil Grand Jury on this 5th day of June 2007.

Ronald R. Layman
Foreperson

David M. Burnham
Foreperson Pro tem

Kathryn C. Philp
Secretary