

June 13, 1995
ILR 95-E

Representative Lowell A. Nelson
House of Representatives
317 State Capitol Bldg
Salt Lake City UT 84114

Subject: Timpanogos Special Service District

Dear Representative Nelson:

As you requested, our office has completed a brief review of the Timpanogos Special Service District (TSSD). This review focused on three areas as outlined in the audit request. Specifically, we reviewed the district board's involvement in the management of the facility, the accuracy and reliability of the metering process, and the method by which current contracted cities can become members of the district.

In interviews conducted with board members and district staff, we found that the most significant problem facing the district right now is an oversight board faced with a tremendous amount of growth, and trying to manage that growth with internal conflict. In our opinion, we believe that the board needs to put conflict behind them and assume more of a policy role rather than a managing role. The board needs to delegate more oversight by allowing district management to become involved in specific assignments rather than relying solely on consultants or board members. To do this may require the board to hire additional staff with specific expertise that existing staff may not have. Now may be the time to do this considering the growth that the district will experience in the near future.

Because of internal conflict, the job of oversight has become much more difficult for the board. Due to a recent announcement concerning the construction of a new manufacturing facility located in northern Utah County, the board is faced with several growth-related decisions. One of those decisions is the immediate need to either expand the existing wastewater treatment plant or build a new one. Because of internal conflict and disagreement, the board has found it

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difficult to organize itself and move forward on this issue. For example, as of April 1995, the board had established where the new plant will be built and an approximate completion date; however, other more immediate issues, such as, where to secure financing and engineering services, had yet to be completed.

If the board is going to effectively manage the district it must avoid conflict and focus more on organizational issues. With the tremendous amount of growth that the district will likely experience, it is vital that the board prepare and organize itself to deal with this issue. To do this, the board must assume more of an oversight role rather than a management role. In our opinion, the board is trying to manage the district itself rather than allowing the district manager and his staff to manage. We believe that the board needs to allow district management the opportunity to manage by delegating various assignments and tasks to them. By doing so, the board allows themselves more time to focus on oversight and policy.

Since the conclusion of this review and our discussion with the District Manager and the Board Chairman, we have seen considerable efforts on the district's part to improve the situation involving the issues mentioned above. Action has been taken by the District Manager in hiring a financial advisor and the board has secured an engineering firm. With the approval of the board, efforts have been made to purchase and install new meters. And lastly, contact has been made with the county commissioners to begin the process of incorporating the cities of Highland and Cedar Hills as members of the district along with revising the boundaries for the new facility.

In addition to addressing these issues, the board has also hired a management consultant team for the purpose of defining and establishing roles. The recently hired consultants plan to interview district personnel in establishing specific roles and helping to build better relations and morale. We believe this is a positive step on the board's part and support all efforts to establish better relations among board members, management and staff.

TSSD Background and History

To help the reader understand the conditions that exist in the district, we present some historical background information on the district. TSSD was established in 1977 under a resolution adopted by the Utah County Commission for the purpose of providing sewage treatment to northern Utah County. The original district members included the cities of American Fork, Pleasant Grove, Lehi, and Alpine. In conjunction with the resolution, an advisory board was established for the purpose of acting as governing authority for TSSD. The board consists of eight persons, all of whom represent the cities located within the district boundaries.

Because of continual growth the district now services by contract, two additional incorporated cities, Highland and Cedar Hills. Both cities are considered nonmembers of the district and as a result, pay an additional 19% surcharge for services. Because the two cities were not incorporated at the time the district was established, the district board determined that a surcharge on the capital portion of the flow rate would be assessed to compensate for the costs not borne by the non-original members. The two cities have been paying the surcharge from the onset of service. The wastewater treatment facility was originally built with the ability to expand and handle projected growth through the year 2020. However, recently Micron Inc., a computer chip manufacturing company announced the immediate construction of a new manufacturing facility located in Lehi. Expected growth in the area will increase dramatically and the need for a new wastewater facility or current expansion of the existing facility is inevitable.

Much to their credit, the board has experienced little conflict over the past 17 years. However, with the recent change of board members and the pressures of immediate expansion decisions, the process has not been as smooth in the recent past. If the board is to be prepared to deal with growth and the issues related thereto, they will need to focus on the role of the board in managing the district and resolve the conflict that exists. Otherwise, the board may not be prepared to deal with these issues and others that are sure to follow.

Board Needs to Delegate More to District Management

In our opinion, the board is trying to manage the district by itself rather than allowing district management to be involved. Time spent dealing with management issues on the board's part takes away from time that could be better spent dealing with other important issues such as growth. We believe the board needs to involve district management by delegating assignments whenever possible. However, we do realize that some assignments may require technical expertise that existing district staff may not have. As a result, the board may want to assess the need for additional staff. We have found that other comparable districts around the state have justified the hiring of additional staff.

We believe that district staff need more involvement and responsibility in dealing with management issues that arise. In our observation, the board has an unusual board/consultant relationship compared to other similar boards throughout the state. It appears that the board rather than using their own existing staff, calls upon contracted consultants for information and management advise. For example, the board in their April 1995, meeting called upon the engineer and the contractor to advise them in terms of a decision that needed to be made concerning underground or aboveground electrical work. The engineer advised the board and the board made the decision accordingly, without any involvement from the district staff. Although we have no reason to question the actual decision, we feel that the board should be advised from

a independent source, particularly their own staff. We believe district management should have more involvement and input in decisions such as this one. In addition, the board will find that it is more effective to use staff and have staff use the expertise of the consultants when warranted to carry out assignments rather than exclusively using the consultants.

Growth and the need for expansion has created an opportunity, if not a necessity for the board to involve district management in more of a management role. For example, during the April 1995, board meeting, when construction of the new treatment plant was discussed the opportunity presented itself for the board to assign management certain duties pertaining to the project. Issues such as financial options, proposed boundaries, and the establishing of an engineering firm all needed to be resolved. However, the board chose to deal with these issues directly and never assigned or delegated any responsibility to management. If the board is to accomplish the task of building a new treatment facility it must become organized and delegate such assignments to staff. In our opinion, securing of financing is one of the first things that must be completed before the project is started. If general obligation bonds were to be used for financing, this would call for an election which was not even discussed at the board meeting. We believe that the board is simply trying to do too much themselves and should be assigning district staff more of the management responsibility.

Some reasons may exist why the board does not often use staff in carrying out assignments. One reason may be that the staff lack the expertise to handle certain assignments such as, preparing complex and detailed financial data. The district currently contracts for all financial services and does not have anyone on staff with the necessary skills. In light of district expansion, we suggest the board assess the need for additional district staff versus the use of consultants. Some consultant work maybe necessary, however, we found that other similar size districts around the state have justified hiring certain full-time staff with expertise to help manage the day-to-day operation and fulfill board assignments as needed. Another reason why staff may not be used often is the lack of confidence that some board members have in staff. Some board members lack confidence and trust in district staff and are reluctant to call upon them for assistance and assignment. On the other hand, staff is somewhat reluctant to make themselves available for assignment because of the lack of confidence by the board. In our opinion, confidence cannot be gained by either party if the board does not give assignments and staff is reluctant to accept them. We suggest that the board reassign duties to existing staff and bring on new staff members to help in carrying out assignments.

We have found from the experience of other similar boards, that to be most effective requires organization and delegation of assignment. Allowing staff the responsibility of certain assignments will help the board to become better organized and consequently better prepared to handle future growth. The lack of organization and staff involvement have been part of the reason why the issue of metering and district membership have become problems. We will briefly discuss these two issues in the next two sections

Board Needs to Explore Other Options Besides Metering

We were asked to look at the metering process to determine its accuracy and find out if certain cities were being billed without meters installed. Although all cities have meters installed, we were told by the district manager that some meters were inoperable for a certain period of time and that later portable meters were purchased and used. However, results of our reasonability test indicate that meters may not be as accurate as indicated, causing some cities to possibly be undercharged for wastewater treatment. While the district has chosen to deal with the immediate problem by purchasing new meters, we believe that the purchase of new meters alone will not make the problem go away. The board needs to explore other options and create new policies concerning how cities will be charged for services.

The district has a total of seven meters, one located within each city boundary, except for American Fork which has two. To determine the accuracy of meters we conducted a reasonability test by comparing a number of usage indicators for the 1994 calendar year. The following figure shows the average monthly wastewater flows, the average dollar amounts billed and the amount of water treated per person per day for all participating cities.

Figure I			
1994 Comparison of Usage Indicators			
City	Average Monthly Flow in Thousand Gallons	Average Monthly Billing	Average Gallons Used Per Person Per Day
American Fork	60,949	\$65,314	116
Pleasant Grove	47,345	51,444	108
Lehi	29,585	33,309	94
Alpine	5,180	6,444	44
Highland	1,951	1,656	33
Cedar Hills	2,951	3,957	77

As can be seen from the figure, some meter readings related to billing figures may not have been reasonable. For example, Highland appears to be using 83 or 260% less gallons per person per day than residents of American Fork. According to national engineering figures the normal use per person per day in the United States is approximately 100 gallons. In comparison, Highland at 32 and Alpine at 44 gallons per person per day appears unreasonable compared to the national average. Evidence would probably indicate that Highland and Alpine is more than likely being undercharged for wastewater treatment.

There are a number of reasons why meters may be somewhat inaccurate. First, the most accurate meters on the market produce errors. Second, if meters are not installed or calibrated correctly it could affect the reading. And third, meters are used in conjunction with a parshall flume; which again, if it is not installed correctly or is not the correct size, could also affect the reading. According to district staff, all of the above conditions have been present during meter readings at one time or other. For example, even though meters are checked and calibrated regularly by district personnel, the meter at one particular location had reportedly been tilted on an angle for a period of time. One city may have had a parshall flume installed that was too big. In addition, district personnel had determined that one meter had lost power and was inoperable for a period of time, all the above conditions possibly could affect accuracy. Consequently, portable meters have since been purchased in case of future meter breakdowns.

In addition to the purchase of portable meters, the district has chosen to solve the problem by purchasing and installing all new stationary meters. In our opinion, this alone will not solve the problem. A number of cities have lost confidence in the metering process and feel it is not reliable or accurate. Although we support the purchase of new meters, we believe that meters alone may not be the most accurate approach to assessing water usage. We recommend that the board assign district staff to research the options associated with determining alternative ways to bill for usage. For example, other comparable districts use national usage figures in conjunction with meters to determine usage.

District staff agree that water usage for certain cities appears unreasonable based on meter readings. However, it has been the practice of the district to use meters to determine flow usage since the district was established. Billing according to inaccurate meters would explain why some cities are being charged considerably less for wastewater usage per person than others. It would also explain why some city billings are high one month and low the next. In our opinion, the board needs to reevaluate the meter policy and determine if any other options exist that could be adopted.

From talking to various district managers from other comparable treatment plant around the state, we found that most plants use a combination of tools to determine billings rather than just relying on meters. The following options are derived from other district approaches to determining billings and may be information TSSD could use in determining what approach they should take in terms of adopting their own billing policy.

The following table shows options used by other districts around the state for the purpose of billing services:

Figure II	
Alternative Approaches to Billing	
Options	Description
Option 1	Use a combination of meters, past usage figures, and national usage figures
Option 2	Divide the total amount of inflow by all users. Businesses are charged a residential equivalence. Requires only one meter located at the head of the plant.
Option 3	Bill residents based on culinary water usage.
Option 4	A combination of all of the above options.

Most districts we talked to around the state have experienced more success by using meters along with a combinations of approaches to determine billings. TSSD is in the process of purchasing new upgraded meters. In addition to the meters, the board has recently approved using flow estimations based on national averages. We feel that the purchase of new meters along with using other alternatives will provide users with the most accurate billing process available.

New Membership and Boundaries Need to be Addressed

Because of the growth issue and the expansion of service boundaries, we believe, this is an opportune time for the board to explore the option of Highland and Cedar Hills becoming district members. Membership requires the petitioning of the county commission to reestablish service boundaries. Service boundaries will more than likely have to be reestablished because of the expanded growth in the district. The board needs to assign management the task of exploring the options for new membership and take the action necessary to establish Highland and Cedar Hills as members.

The recent plans to expand TSSD has created the need for revision of service boundaries throughout the district. The process for establishing new boundaries and membership appears to be fairly straightforward. According to the **Utah Code** 17A-2-332, service expansion requires petitioning the county commission to establish new district boundaries. We believe this is an opportune time for the board to assign management the task of determining what all needs to be done to establish new district boundaries and create new membership. According to the **Utah**

Code, once new boundaries have been established, all incorporated cities included therein will be represented on the board and be given membership rights.

Both Highland and Cedar Hills would like to become members of the district and be represented on the board. Highland, who has been serviced by the district since July of 1980, recently made a "good will gesture" in the amount of \$45,000, payable to the district for the purpose of becoming a member. In addition Highland has also paid in excess of \$14,000 relating to the 19% surcharge issued by the district. Cedar Hills has been serviced since December 1985 and has paid over \$16,000 in charges related to the 19% surcharge. However, new membership requires petitioning the county commission to establish new boundaries which neither the board nor the two cities have done. We recommend that the board take the action to establish Highland and Cedar Hills as members of the district. If action is not taken on the boards part, the cities have the option of petitioning the county commission themselves.

Both Highland and Cedar Hills, would like to work with the board to gain membership. However, if their efforts are fruitless, we suggest that the two cities as municipalities, petition the county commission for membership themselves. According to the **Utah Code** 17A-2-332, the cities have the right to petition the county commission to establish new district boundaries which would incorporate both cities. Once the new boundaries are set, according to the original resolution the newly establish cities are to be given membership rights and be represented as voting members of the board, otherwise the board could be in violation of the law. Due to the original cities providing service to annexed areas outside the original district boundaries, the board may be in violation of the law today. It appears that in any respect, the county commission will need to revise and clarify district boundaries. At that time, we believe Highland and Cedar Hills should be established as members by the board.

Recommendations:

1. We recommend that the board assume more of an oversight role by delegating more assignments and responsibility to management.
2. We recommend that the board look at reassignment of staff duties and assess the need for additional staff.
3. We recommend that the board explore options and create a policy concerning how cities will be charged for services.
4. We recommend that the board take the necessary action to establish the cities of Highland and Cedar Hills as members of the district.

We suggest that TSSD be given approximately three months to work on the membership

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concerns and implement the recommendations as outlined in this report. After which, we would like to observe their progress and report back to you concerning what has been accomplished. Depending on the board's progress, you may want us to do additional work.

We hope this letter has provided the information that you need on these issues. A response from Timpanogos Special Service District is attached. If you have any further questions or concerns, please contact us.

Sincerely,

Wayne L. Welsh
Legislative Auditor General

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