Vallecitos Water District
Technical Review Workshop #1
Meeting Minutes
2008 Water, Wastewater, and Water Reclamation Master Plan
August 18, 2010

Present at meeting

James Gumpel, Vallecitos Water District
Robert Scholl, Vallecitos Water District
Cheryl Brandstrom, Vallecitos Water District
Ken Gerdes, Vallecitos Water District
Dennis Lamb, Vallecitos Water District
Jeff Scott, Counsel Vallecitos Water District
Steve Maciej, Building Industry Association of San Diego County
Jim Hernandez, HBA Architects
Paul Metcalf, University District
Kirk Effinger, New Century Consulting Organization
Bill Effinger, New Century Consulting Organization
Steve Nielson, Wilson Engineering
John Nabors, Nabors Consulting Services

Mr. Gerdes introduced workshop and mentioned previous NOP Scoping meeting and how this discussion was different. The Draft PEIR should be coming out in November with a minimum 45 day review period. He anticipated the District would receive additional comments at that time once the document was available for review. The District would respond to comments and the letters and the responses would be part of the final document.

Question: How long will the public have to respond to the document? Could a comment come in after the 45 days of the NOP comment period?

Answer: Mr. Gerdes answered that the District would accept comments at anytime during and after the review periods. Comments would be accepted until the Board considers adoption of the final document probably in February. He also said that the NOP and information about the PEIR is posted on the District's website along with information about all upcoming meetings.

Question: Will the District answer all of the comments received?

Answer: Yes the District will try to answer every question to the best of our ability.

Mr. Gerdes then talked about future technical meetings. The District understood that density impacts has been an issue with local planners, developers, and engineers, and the District has a process to identify density impacts and will do so in the near future at another meeting. He went on to explain that the Master Plan is a technical document that takes in land use and duty factors for different types of projects and land uses. While the Master Plan is an important part of the process, it does not establish fees. Capital Facility Fees are established after the Master Plan is adopted and updated fees should occur sometime after February 2011.

Question: What data do we use to establish the duty factors?

Answer: Our data comes from District water and sewer meter records. We also compare these figures with other agencies and our previous Master Plan. The information is then plugged into a hydraulic model which helps determine size of pipe and when it needs to be built. Resulting deficiencies in either water or sewer pipelines are determined at that time. The deficiencies are based on the overall land use duty factors and the existing system. Project specific impacts, such as increasing water main size due to fire flow requirements are determined by analyses during the plan check process.

Question: How early in the process can developers obtain fee information including density fees? Many of them had to plan budgets way in advance and need that information.

Answer: District staff believes that having these meetings will help local developers, planners, and engineers, understand the process and how fees are calculated so that anyone developing property should be able to get pretty accurate demand and generation numbers.

At this point Robert Scholl took over the meeting and the presentation.

Mr. Scholl explained that the intent of the presentation is to show how the District gathers information to create the duty factors for different land uses. He said the meeting would be informal and he would take questions anytime during the presentation.

The Master Plan process was summarized to date. Currently the District is wrapping up a proposed Capital Improvement Program and staff intends to take the information to Board Committee on September 13, 2010, for a presentation.

The District obtains approved land uses from other agencies for each parcel located within the District's sphere of influence. Currently there are approximately 30,000 parcels within the District.

Mr. Scholl talked about how duty factors are generated. The District compiles meter data generated from water accounts and compares this data with sewer meter records, previous Master Plan documents and other agency records. With this information, water and sewer demands are generated and the District is able to create and calibrate water and sewer models and design criteria. Design criteria standards range from pressures, velocity of pipelines, sizes, etc. From this information the Capital Improvement Program is developed and phasing is analyzed at a programmatic level in the Master Plan. This is where the District is right now in the Master Plan Process. The District also evaluates water supply and sewer disposal and alternatives for water supplies such as desalination.

Question: Is the Capital improvement plan updated with the Master Plan and is it a 5 year program?

Answer: The District looks at 5-year increments and to ultimate build out which is based on SANDAG projections and the year 2030.

Question: Does each Capital Improvement project have a timeline to build? When the timeline is established, what governs building this pipe or facility?

Answer: The District regularly reviews the program and identifies projects which may need to be prioritized due to factors such as pipeline condition or unanticipated development. The Master Plan project timeline is for planning purposes. Development generally drives what project is most important and needed first.

Question: When is it decided the District needs to build something?

Answer: Generally it is 1 to 2 years out and is looked at as the District goes through the budget process. Ultimately staff and management makes a recommendation and the Board of Directors makes the final decision. The District looks at what growth is being planned and makes reasonable assumptions of capital facility needs.

The next topic of discussion was Land Use.

Rob explained how the data is collected. SANDAG growth figures go out to 2030 which is why the Master Plan goes through 2030. The cutoff for data collected for this Master Plan was June 30, 2008.

Question: There seems to be conflicting information between what the District is using and what the City of San Marcos (City) has shared with the District for the Richmar area. Did the District review this area?

Answer: Yes the District reviewed the Richland area at the request of the City staff. The City asked if a Water Supply Assessment (WSA) was needed. Based on the information provided, and the guidelines for a WSA, the District suggested that the City check with the City Attorney and decide. City staff also asked if the District would require water and sewer studies for this area and would we be commenting on the environmental document associated with the Richmar area. Since the specific land use in the area is still uncertain as far as densities go for each parcel, the District staff recommended that any water and sewer studies would be required at the time individual projects in this area come forward and more detailed information is known.

It was confirmed that no reports had been completed by the District for the Richmar area.

Duty factors were the next topic of discussion.

Mr. Scholl explained that the District utilized water meters on the water side and sewer flow meters to determine the duty factors for both water and sewer. As shown in one of the slides presented at the meeting, some of the duty factors are similar to the 2002 Master Plan but as densities increase on property, the trend is that the duty factors are much higher, but the average gpd per unit is trending lower. More is being built on a single parcel of land.

Question: Is it done on a percentage basis?

Answer: No, it is done on a gallon per day(gpd)per acre basis. Historically it has stayed fairly close to the same figures in the last couple of Master Plans.

Question: Why is higher density using more? Isn't higher density using less water? Was Irrigation used in the calculations?

Answer: Every piece of land is looked at on a global scale and how much gpd is used on the property. It is an averaging affect. As mentioned, the higher density projects are seeing a lower per unit demand, but since there are more units (higher density), the duty factor is higher (based on a per acre calculation).

Question: Why did usage go up between 2002/2008 Master plans?

Answer: The District now has much more sophisticated software and more refined data. Data is much more accurate than ever before. Also during this period there was a boom in development and much more data to use between 2002 and 2008. As noted on the slide, although many categories went up in gpd/per acre, some decreases have been noted.

Question: Has the District considered breaking down commercial even further? For example restaurants vs retail etc.

Answer: There was no plan to break commercial down further however, the District looks at projects on a case by case basis. An example is restaurants. Seat counts are utilized when determining capacity requirements for restaurants. But for planning purposes the different types of commercial uses are lumped together. The District can only use what the City uses although some new categories are being proposed.

Question: What about hotels? Will there be a hotel/motel category in the new Master Plan?

Answer: Hotels/motels are being looked at in the mixed use category for hotels and restaurants. The District's data and other data collected shows hotels use about 125 gpd of water per room and we feel this is an accurate figure.

Question: How is student housing looked at CSUSM and Palomar College?

Answer: The District considers student housing as a high density user. Currently in the multi-family properties, we are seeing about a 90 percent return to sewer. The District plans to add a discussion on how to handle the mixed use in the Master Plan.

Sewer and water demands were discussed next.

Mr. Scholl explained how ultimate demands are established based on the 2008 Master Plan duty factors and the approved land use coverage within the District's sphere of influence. The District has seen an increase in agriculture and multi family since the 2002 Master Plan and a decrease in sewer flow projections since the 1991 Master Plan. This is due to I & I issues that have been addressed.

Question: What is I & I?

Answer: This is inflow and infiltration into sewer pipes. Since the 2002 Master Plan, the District has completed several sewer CIP projects in problem areas and has eliminated much of the I & I throughout the District. Since 1991 the build out flows have declined.

Mr. Scholl provided information on historical water demands and sewer flows since the 1975 Master Plan (water) and 1986 Draft Master Plan (sewer). He explained the mixed use category and what duty factors are being proposed.

The new Master Plan shows water duty factors for high density at 200 gpd/residential unit and sewer duty factors of 180 gpd/residential unit.

Question: In the Creekside District project, how does this compute with the new duty factors? Aren't duty factors based on calculations of gross acreage? A portion of this area will ultimately be set aside for the actual creek, parks, etc. Is this accounted for in the multi-unit factor?

Answer: The District has an open space duty factor for water and sewer generated which is very low. So, yes the District has accounted for these types of areas.

Mr. Scholl presented Example #1 showing a change from residential to mixed use on a 5 acre site.

Question: How would the District develop a cost for a project with 100 units/per acre with open space on the property?

Answer: The District would ask for information on the open space area and each portion of the land and what it will be used for. This is considered in the water and sewer studies. Historical data shows that there are definitely trends in water demands and sewer generated for all types of land use.

Question: The historical sewer flows and flow projections show a total buildout of 13.3 million gpd is this correct?

Answer: Yes, based on historical flows the District anticipates 13.3 mgd at build out.

Question: Is conservation figured in when you project water demands and sewer flows?

Answer: Yes this is figured into the water demands and sewer flows.

Mr. Scholl continued with the mixed use example and how it is calculated.
The 1st story commercial, industrial, etc, uses acreage to determine water demands and sewer flows. Then the multi family is added on top.

Question: How do you reconcile the first level (1st story) of a project?

Answer: The District uses the duty factor for that type of use on the ground floor. An example provided is if it was just commercial with no residential, the District calculates based on the duty factor for that use. In this case the District

does the same thing and then adds the residential onto the site and uses the gpd/unit to determine water demands and sewer flows for the project.

Question: What happens to the 10 percent that is taken out of the sewer flows? Doesn't seem like enough for irrigation on the site?

Answer: It is likely lost through cooking, watering plants, drinking water etc. Irrigation meters are separated out in the calculations and based on area being watered. They are generally minimal in comparison to water demands for the multi family.

Question: Does the 2008 Master Plan contemplate a new policy for Ordinance No. 161?

Answer: No it does not. The Master Plan does not discuss any Ordinances or Resolutions. That is done separately by Board action.

Mr. Scholl continued his presentation and explained Example # 2 and # 3.

Example #2 was a change in land use from light industrial to commercial. In this case the water demands and sewer generated decreased on the property.

Example # 3 was a change from light industrial to mixed use. Case was similar to the Palomar Station project proposed in the District. In this case the water demands and sewer generated increased substantially, however there was not a large increase from the 2002 Master Plan calculations.

Question: Didn't the Palomar Station project obtain a Specific Plan amendment for their project and wouldn't that have already been completed in the 2002 Master Plan?

Answer: Staff agreed that there was a Specific Plan Amendment however the project proponents were required to do a water and sewer study. In the case of Palomar Station, it went from mostly industrial to very high density mixed use. This was a major change in the land use. Light industrial is very low demand and mixed use/multi family is very high in respect to what was it was already zoned for.

Mr. Scholl finished the presentation with Example # 4 which was a large mixed use planning area and asked if there were any questions?

Question: Could the District do a hotel/motel example at the next workshop.

Answer: Yes, the District will include a hotel/motel example.

Question: Does the District take into consideration that hotels/motels are not always full and many have only an 80 percent occupancy rate at any given time?

Answer: Although this may be correct, the District needs to have system facilities built to handle the full capacity, or worst case scenario. This means the District must plan for the hotel to be full at any given time. An example of the Super Bowl was used. At halftime, it is a proven fact that sewage generated spikes. The District must be ready to handle the total capacity flows and build facilities accordingly.

Question: Don't the densities have a direct connection to capital improvements needed. With the collection of density increase fees, would this minimize capital facility fees needed in the future?

Answer: Yes the collection of density increase fees will most likely have an impact on additional future facilities needed. which could impact the costs.

Question: Without sounding like we do not trust you, how do we know that the figures that you are using to establish the duty factors are true numbers? Other types of agencies utilize independent audits that check the accuracy of numbers in any given situation. What is the District doing?

Answer: The District uses an outside consultant to put together the Master Plan and verify the District's data for accuracy. In this case they were given information from about 25,000 water meters in the District and several sewer meters. The firm putting together the Master Plan is the Engineering firm PBS&J.

The next meeting to discuss Capital Facility fees was discussed.

Staff thought that the Finance Director could be available to show how Capital Facility Fees are established. There were questions related to how much fees might go up after the Master Plan is completed.

It was decided to have the next meeting on Wednesday August 25, 2010, at 5:00 p.m. to discuss Capital Facility Fees.