

## Attachment B

### City of Los Angeles IRP Steering Group Workshop No. 5 June 26, 2003

## FEEDBACK REPORT

- 1. The following comment was raised via phone by a Steering Group member who was unable to attend the workshop: we should use the recycled water from Tillman Water Reclamation Plant for projects to replenish the drinking water supply, like the initial intent of the East Valley Project, or for other ways to use the recycled water to offset our imported water demands, like for irrigation. It is a waste to dump the water into the LA River.**

The alternatives that maximize the use of recycled water fall under the High Beneficial Use of Water Resources alternatives. In the upcoming Workshop 7 in September, the IRP team will present the integrated alternatives and the individual "scores" for each alternative. The alternatives will include recycled water options. The scores will reflect how well each alternative meets the objectives developed by the Steering Group, considering the importance (i.e., weighting) each Steering group member gave the objectives.

- 2. On the map in slide 12 and the pull-out graph in the presentation package (“Tiered Recycled Water Alternative – Draft”), describe the pipeline extending west and the one extending northeast of the Tillman Water Reclamation Plant in Tier 1 (Pink area).**

The pipeline extending to the west of Tillman Water Reclamation Plant is a planned reclaimed water line that will terminate near Pierce College and would be combined with the MTA bus way. The dashed pipeline extending to the northeast of Tillman Water Reclamation Plant is the existing reclaimed water line terminating in the Hanson Dam area. The figure “Tiered Recycled Water Alternative – Draft” has been revised, and a copy is attached.

- 3. If the Tillman Water Reclamation Plant currently has 50 to 60 million gallons of effluent per day going out to sea, is it fair to say that there is not the piping in place and a demand to beneficially reuse the recycling water from the Tillman plant?**

Currently about 46 million gallons per day of reclaimed water are being discharged from the Tillman plant to the Los Angeles River which discharges to the sea. The potential demands shown on the tiered recycled water alternatives map are demands that would be filled when/if the pipelines are built. The dashed lines on the map show the existing recycled water pipelines available to convey the water to the end users. Currently the demand for the recycled water is there, but the infrastructure is insufficient to deliver all the recycled water produced at the Tillman plant to the end users. The solid dark-pink lines on the map show the planned reclaimed water pipelines that will deliver more recycled water from the treatment plants, and the amount of recycled water that will ultimately be delivered to the end users depends on the options, like whether or not the Tillman plant is expanded.

- 4. Tillman was sold to the public back in the 1970's on the basis of a demand for recycled water, and almost 30 years later there is not enough demand to use the existing recycled water produced at the plant.**

Currently the demand for the recycled water is there, but the infrastructure is insufficient to deliver all the recycled water produced at the Tillman plant to the end users. The Department of Water and Power (DWP) is moving forward with constructing the infrastructure to link the recycled water from the treatment plants to the demand. DWP is converting a project that was initially designed to use the recycled water from the Tillman plant for groundwater recharge to more traditional projects that will deliver the recycled water for industrial and irrigation uses. Another thing to keep in mind is that the recycled water from the Tillman plant is proving a habitat benefit to the Los Angeles River, and there is a study currently ongoing to determine the amount of water from the water reclamation plants that is needed to maintain the benefit to the Los Angeles River.

- 5. Forgetting about political aspects, has anyone looked at the costs of building the conveyance systems to deliver the recycled water to the users vs. treating the water to potable levels, eliminating the need for a separate piping infrastructure?**

In the United States, the regulations will not allow recycled water to be used for direct potable water reuse (delivering it directly to the potable water distribution system). In addition to irrigation and industrial use, recycled water is being used elsewhere in the county (San Gabriel River) and in the U.S. for indirect potable water reuse, like for groundwater recharge and for reservoir augmentation. The only indirect potable reuse option that the IRP will consider is using recycled water for groundwater recharge.

- 6. For the option of using recycled water for groundwater recharge, are we talking about treating it to drinking water standards before recharging?**

The Department of Water and Power previously designed and constructed a project to pump the tertiary treated water from the Tillman Water Reclamation Plant to the Hanson Spreading Grounds for groundwater recharge. Before the project began operation, the scope of the project was changed to use the recycled water for irrigation and industrial uses, instead of for groundwater recharge. The quality of the recycled water from the Tillman plant is very high quality, meeting all drinking water standards with the exception of Nitrogen levels and is several times cleaner than some of the captured runoff water that is currently being used for groundwater recharge. However, for the IRP, any option we will consider using recycled water for groundwater recharge will have higher levels of treatment such as reverse osmoses, UV disinfection, hydrogen peroxide, and/or other levels of advanced treatment. While this recycled water would then meet all drinking water standards, it still would not be legal to use for direct distribution in the potable water supply, limiting us to only consider the indirect reuse option of groundwater recharge.

- 7. On the pull-out graph in the presentation package (“Tiered Recycled Water Alternative – Draft”), what do the blue-green dots represent?**

The blue-green dots represent landscape types of recycled water reuse locations and the yellow dots represent industrial types. The size of the dots represents the amount of use demand as indicated by one of the 5 different sized dots shown in the legend (in pink). The figure “Tiered Recycled Water Alternative – Draft” has been revised, and a copy is attached.

- 8. Even though there may be political opposition and regulatory hurdles, it will be short sighted to not look at recycling the water for groundwater recharge. We need to get use to the fact that all water is recycled and that public education campaign needs to start right here right now.**

The IRP is developing alternatives that maximize the use of recycled water which fall under the High Beneficial Use of Water Resources alternatives. The IRP also has a public education component which seeks to get the word out about the important issues being addressed in the IRP, including the recycled water acceptability issue.

- 9. The public will never be educated enough to accept recycled water for groundwater recharge.**

Any option that the IRP will consider using recycled water for groundwater recharge will have higher levels of treatment such as reverse osmoses, UV disinfection, hydrogen peroxide, and/or other levels of advanced treatment. In the upcoming Workshop 7 in September, the IRP team will present the integrated alternatives and the individual "scores" for each alternative. The alternatives will include recycled water options. The scores will reflect how well each alternative meets the objectives developed by the Steering Group, considering the importance (i.e., weighting) each Steering group member gave the objectives.

- 10. Instead of treating the recycled water to higher levels to remove the nitrogen (for discharge to the Los Angeles River), let's market the recycled water for irrigation water because the high nitrogen level is good for lawns (built-in fertilizer).**

Options for using the recycled water for irrigation are being considered in the IRP. The alternatives that maximize the use of recycled water fall under the High Beneficial Use of Water Resources alternatives.

- 11. When presenting the cost of the recycled water alternatives, show the total cost benefit analysis, like the avoided costs of purchasing imported water and the avoided cost of fines from not meeting the TMDL regulations.**

As part of the overall analysis of the integrated alternatives, avoided costs and other indirect benefits will be considered.

- 12. The focus of the recycled water should be publicized as clean water opportunities, not as opportunities for reusing wastewater.**

The IRP will consider this in the public outreach component of the program.

- 13. So. Cal Edison is planning to use all land under power lines for capturing rainwater and for recreational uses. The IRP should look at these options too.**

The IRP is considering the use of urban runoff in multi-benefit alternatives. The urban runoff alternatives will be discussed at the next workshop, Workshop 6 on July 24.

- 14. Because of the costs associated with bringing recycled water to the potential end users, recycled water is an unwanted product of treating a lot of wastewater. Instead of focusing on treatment and distribution of recycled water produced, we should focus on limiting the amount of wastewater there is to treat.**

Limiting growth is outside the scope of the IRP, but the IRP will consider options addressing water conservation waterless urinals, and other options that decrease the amount of wastewater produced.

- 15. There is a demand for recycled water for irrigation and industrial uses. To show how the use of recycled water is cost effective, please provide a simple cost benefit analysis for a recycled water project like the project to extend the pipeline from the Tillman plant to Pierce College.**

Considering the non-cost related factors (or benefits) is an important consideration when evaluating alternatives. In the upcoming Workshop 7 in September, the IRP team will present the integrated alternatives and the individual "scores" for each alternative. The alternatives will include recycled water options. The scores will reflect how well each alternative meets the objectives developed by the Steering Group, considering the importance (i.e., weighting) each Steering group member gave the objectives.

- 16. Toilet to tap is an emotional argument that the media is using, but we are addressing it rationally. Maybe we should attack it emotionally.**

This is a good point that will be addressed in the public outreach/education component of the IRP.

- 17. For slide No. 9, public/political acceptability should be added as a consideration for determining the recycled water demand potential.**

Slide No. 9 was revised as suggested, and a copy of the slide is attached.

- 18. In a research study of public perception issues, it was reported that if you can demonstrate to the public that you are improving the quality of life (quality of water in our case), you can gain public acceptability. It may be good to have a workshop to discuss this issue of public acceptability.**

The IRP is currently addressing this issue in the Public Education/Outreach component of the program. We will consider adding another workshop or sub-committee dedicated to the public education/acceptability issues.

- 19. This process is giving the public the opportunity to come up with a solution. It changed from a top down approach to a bottom up approach, so we should work together to develop the solutions for the IRP.**

The Steering Group will be working together to select the alternatives that will be recommended by the IRP.

- 20. Communities need to know how to deal with their own water and waste needs. Consider decentralizing the sewage treatment and develop pilot projects that study the composting of human waste.**

The IRP is developing alternatives that are more decentralized.

- 21. In the pull-out graph in the presentation package ("Tiered Recycled Water Alternative – Draft"), the pipe extending south from the Los Angeles/Glendale Water Reclamation Plant seems like a better choice than the one extending west of the Tillman Water Reclamation Plant.**

At this point we should consider all alternatives on a level playing field before any decisions are made about which is better.

- 22. The public is visualizing nasty stuff that is going into the sewers including waste from sick people in hospitals. It will be a hard sell to prove to the public that recycled water is safe.**

It will be a challenge to assure the public that the treatment process removes all disease causing elements from the water including HIV and other viruses. The IRP is a tool that can be used to educate the public that the recycled water is safe.

- 23. Decentralizing the wastewater treatment process may not be cost effective because of the complexities of the process and the technical expertise needed at each plant.**

Some of the alternatives in the IRP are more decentralized than others. In the upcoming Workshop 7 in September, the IRP team will present the integrated alternatives and the individual "scores" for each alternative. The scores will reflect how well each alternative meets the objectives developed by the Steering Group, considering the importance (i.e., weighting) each Steering group member gave the objectives.

- 24. A recent public opinion pole conducted by the West and Central Basin Municipal Water Districts asked Californians which of the 10 options offered they would prefer to use to meet our future water resource needs. The option with the highest approval rating (80%) was the option of non-potable use of recycled water, and the option of indirect potable reuse had a 57% approval rating . When we talk about educating the public, we should use the word “inform”, not “educate”, and to combat negative slogans like “Toilet to Tap,” we should put a positive spin on them like “Sink to drink.” This information will be provided to the public outreach team.**

- 25. Remove all concrete in the Los Angeles River to help groundwater recharge.**

There are studies underway to develop alternatives for revitalizing the Los Angeles River, and removing the concrete lining in some sections is being considered.

- 26. Is the Total estimated wastewater flow in year 2020 of 531 million gallons per day noted in slide 21 (Projected Average Wastewater Flows in Year 2020) the sum of the flows by the arrows?**

Yes.

- 27. The projected 2020 wastewater flows won't exceed total treatment capacity, is this correct?**

Yes, but the excess treatment capacity is not necessarily in the area where it is needed.

- 28. Storage can be used to level out capacity issues, as addressed in last workshop.**

This is correct, and storage is being considered in several alternatives.

- 29. On slide 26 (Wastewater Alternative: Low Cost #1), if you don't discharge to LA River, you may need storage at the Los Angeles/Glendale Water Reclamation Plant.**

This option does not include storage at Los Angeles/Glendale Reclamation Plant.

- 30. At Los Angeles/Glendale Water Reclamation Plant, if you don't de-rate because you don't discharge to LA River, the capacity is higher.**

This is correct.

- 31. Why does the footnote in slide 27 (Corresponding Recycled Water Situation: Low Cost) state “Groundwater recharge using RO treated water could total over 30,000 afy, without significant costs” since RO has tremendous costs.**

The cost being referred to are transportation cost, not the cost of reverse osmosis (RO) treatment.

- 32. Change footnote in slide 27 to “without significant transportation costs”**

The slide has been changed. Please see attachment.

- 33. The low cost alternative is not really a low cost alternative. The regulations are demanding that the water put in the LA River is cleaner than drinking water standards. That’s preposterous. Can we look at other ways of meeting the permit requirements and/or fighting such excessive regulations?**

The IRP calls for meeting all regulations as a requirement.

- 34. For the Hyperion Treatment Plant (HTP), how much effluent is being discharged and is it discharged to the sea rather than a river. If so, is there the same a low nitrogen level requirement for HTP as the upstream plants that discharge to the river?**

Hyperion Treatment Plant (HTP) discharges about 350 million gallons per day (mgd) of secondary treated effluent of which about 320 mgd is discharged to the ocean (about 30 mgd is delivered to the West Basin Water Recycling Facility for further treatment). There are high nitrogen limits for the HTP discharge.

- 35. Can we develop an alternative to add another pipeline to Hyperion Treatment Plant (HTP) from the valley to avoid the high treatment cost at upstream plants?**

The IRP team is currently developing another wastewater alternative that reflects a new pipeline from the valley to the ocean (via HTP). This alternative will be shared at Workshop 7. We should also consider that the discharge to the Los Angeles River from the upstream treatment plants is creating a benefit to the Los Angeles River.

- 36. The upstream plants can have two effluent qualities, one for irrigation water with high nitrogen and the other for the Los Angeles River with higher RO treated water.**

The IRP will look for solutions with this type of flexibility.

- 37. Has concerns with using high nitrogen water for irrigation as the nitrates may reach the groundwater aquifer.**

Currently fertilizer with high concentration of nitrates is being used along with areas of septic tanks without high concern of contaminating the groundwater aquifer.

- 38. How much water is needed to sustain the LA River?**

There is a study currently underway that is determining the optimum amount of water that is needed to sustain the benefits to the river. The alternatives developed for the IRP assume that the amount of flow that is going from the Tillman Water Reclamation Plant through Lake Balboa, Wildlife Lake, and the Japanese Garden to the River is about 27/28 million gallons per day which is lower than the current amount from the plant.

- 39. As we revitalize the river and as the river parkway extends, the demand for water will become clearer. Historically, the Los Angeles River had some year-round flow which**

**varied with the season. The revitalization projects will seek to reflect historic conditions. This will depend on whether or not the concrete is removed and whether or not we can restore interaction between surface and groundwater.**

The IRP is involved with studies to determine the optimum amount of water that is needed to sustain the benefits to the river and in revitalization studies for the Los Angeles River.

**40. In slide 28 (Wastewater Alternative: High Beneficial Use of Water Resources #1), will there be no discharge to the Los Angeles River? If so, when?**

This alternative will have no discharges to the Los Angeles River, all water will be recycled. The date that this will occur, will depend on the effective date of the regulations.

**41. Regarding the slide 30 (Wastewater Alternative: High Adaptability #2) that shows upgrading Tillman to 120 mgd (adding Tillman 3), I don't want to see the City go through what Caltrans went through with the 101 Freeway experience. There is no way that basin user groups will allow the City to use one more foot of basin land outside the berm for wastewater treatment processes. Asked that Tech memo 13 that details the expanding Tillman #3, 4 & 5 be made available to Steering group, on disks.**

The document detailing the expansion of the Tillman Water Reclamation Plant is a good reference document but is an outdated document. The IRP is the current process for determining the options for expansion of Tillman to meet the year 2020 demand.

**42. On slide 30 (Wastewater Alternative: High Adaptability #2), what is the purpose of the storage?**

The purpose of the storage is to help with the peak wet weather flow, eliminating the need to build more downstream conveyance capacity, and to provide storage of normal peak dry weather flow so that this flow can be used at night when all of the irrigation reclaimed water needs occur, which is also when the plant has the lowest wastewater flow that cannot meet the demand. The storage tank will allow this demand to be met.

**43. Look at where the wastewater is being created; there should be a limit to development. Are you looking at the control of the source?**

The way the IRP is looking at source control is by water conservation and other methods that limit the amount of wastewater being produced. Limiting growth is outside the scope of the IRP. By law the IRP must use the population that is projected by the Southern California Association of Governments (SCAG).

**44. Make growth pay 100% of growth**

This will be considered as part of the funding portion of the IRP.

**45. Add an alternative to build a pipe in the Los Angeles River from upstream plants out to the port to avoid the discharge requirement to the Los Angeles River.**

The IRP team is currently developing another wastewater alternative that reflects a new pipeline from the valley to the ocean (via HTP). This alternative will be shared at Workshop 7.

**46. To meet some of the guiding principles, we can not use this alternative to build a line to HTP from the upstream plants.**

This alternative may not score very well, but it will be added as an alternative.

**47. On slide 35 (Comparison of Wastewater Alternatives), are the costs shown all associated costs, like avoided costs?**

Because these are just the wastewater alternatives, the cost saving have not been factored into the cost shown in the slide. The avoided costs will be shown in the integrated alternatives.

**48. Add more descriptions on the slide 35.**

For the table in slide 35 “Comparison of Wastewater Alternatives”:

"Cost" column represents the relative comparison of total lifecycle costs for each alternative. Lifecycle costs consider capital and operation & maintenance costs.

The "Additional Recycled Water served" column represents the additional acre-feet per year of recycled water delivered to irrigation and industrial customers for each alternative.

The "Additional Recycled Water available" column represents the additional recycled water produced at the existing or new treatment facilities that is available to be delivered to customers in the future (but not assumed to be delivered under this alternative.)

The "Total Add'l Recycled Water Potential" column represents the sum of the "Additional Recycled Water Served" and "Additional Recycled Water Available" columns.

The "Total Effective Wastewater Treatment Capacity" column represents the total wastewater treatment capacity, minus the return flows (e.g., brine or sludge) back to the wastewater system for treatment. The values vary by alternative, because they are dependent on the amount of advanced treatment assumed upstream in the system.