OFFICE OF MAYOR JERRY SANDERS

MEMORANDUM

DATE: September 13, 2007

TO: Honorable Members of the City Council
City Attorney Mike Aguirre

FROM: Mayor Jerry Sanders

RE: Water Reuse Study

Last week, the City Attorney issued a memorandum attempting to link water supply issues with wholly distinct topics- a waiver from secondary treatment requirements intended for the City's Point Loma Wastewater Treatment plant and indirect potable reuse (or as it is referred to in the City Attorney's memo "toilet-to-tap") which proposes turning reclaimed sewage water into drinking water.

The City Attorney followed that memo up with several media appearances including appearing on KUSI on Wednesday morning, September 12, 2007 in which he proposed expanding indirect potable reuse (IPR) to the Point Loma Treatment facility to solve the City's short-term and long-term water needs. It should be noted that IPR is not a silver bullet to the region's water needs and the soonest IPR could be brought online would be 7-9 years down the road. Additionally the capital costs on IPR range from $300 million to at least $4.5 billion for the City Attorney's Point Loma IPR option.

There is neither the money nor the broad public acceptance to pursue IPR at this time. Therefore, I would oppose any attempts to pursue indirect potable reuse.

Water Reuse in the City of San Diego:

The City of San Diego has pursued with some success non-potable water reuse. With the construction of the North City Water Reclamation Plant and the South Bay Reclamation Plant, the City has made significant strides in our use of reclaimed water. In 1997, the City beneficially only reused 191 acre feet of recycled water (an acre foot equals approximately 325,900 gallons of water), in 2006, the City of San Diego reused 5,509 acre feet. And water reuse by the City will continue to climb because of recent agreements struck with the Otay Water District and the

Olivenhain Municipal Water District. The Water Department estimates that in 2008 the City will reuse 12,000 acre feet of water (7,200 AF from North City and 4,800 AF from South Bay).

Several important policy points need to be made about recycled water use within the City of San Diego. First, water reuse is not a silver bullet to fix all of the regions water needs. Even if both plants were operating at full capacity and the maximum amount of water was being reused, it would only make up a little over 5% of the regions water supply.

Second, the price points on Recycled Water for use in reservoir augmentation continue to be much higher than any other type of water. Imported water costs approximately $500 an acre foot, water transfers cost approximately $800 an acre foot and seawater desalination costs approximately $1400 an acre foot. Recycled water at its lowest cost starts at $1600.

Cost Comparison of Water (cost per Acre Foot)	
	Cost to City
Indirect Potable Reuse[1]	$1,882*
Desalinated Water[2]	$1,400*
Raw Water [3]	$515
Potable Water [3]	$679

1 Source: Water Reuse Study, March 2006 – Indirect Potable Reuse costs are the combination of Advanced Treated Water and Tertiary Treatment (planning level numbers)
2 Cost estimates were extrapolated from SDCWA 2003 estimates
3 Source: San Diego County Water Authority budget document, Effective January 1, 2008
* Does not include eligible incentives or credits

Last, the City continues to provide major discounts for the purchase of reclaimed water. These discounts have prevented the program from even coming close to paying for itself. When the discount program was passed by the Council in 2001, there was not a CPI (Consumer Price Index) or inflation adjustment built into the program because it was assumed the rate would be adjusted within a few years. The price of reclaimed water was set at $350/AF and is now roughly 32% of the potable water rate while the industry standard for the sale of reclaimed water is between 85-90%. The City should reconsider these discounts to see if they are still needed or appropriate. I personally believe that more of the costs of reclaimed should be borne by the reclaimed commodity.

Water Reuse Legislative History:

In 1993, the City and the County Water Authority proposed an indirect portable reuse plan called the "Water Repurification Project." That project proceeded through the planning and regulatory review phase before being cancelled in 1999 due to overwhelming public opposition. In order to

continue pursuing some form of recycled water use, in 2000 the City released its *2000 Updated Water Reclamation Plan.* In a settlement agreement reached with members of the Environmental Community in 2004 the City agreed to study increased water reuse.

The City of San Diego received the Final Draft Report of the "City of San Diego Water Reuse Study" in March 2006. In July of 2006 the Study was presented to the NR&C Committee. Instead of forwarding to council, the committee requested it be held so that individual Council members could hold community forums in their individual districts to discuss the content of the report. It appears that only one forum has been requested and held. In response to comments made by the Chair and other Council members made at the July 18, 2007 joint Council and Rules Committee on water supply issues, I am forwarding the "City of San Diego Water Reuse Study" to the Council President for discussion and acceptance by the City Council.

Water Reuse Options:

The City recently asked ratepayers to accept a four year $1.4 billion water and sewer rate increase for infrastructure improvements and the City has been forced to follow that up with a County Water Authority pass through and for many, a sewer rate increase to settle the Shames Lawsuit. Therefore, it would be inappropriate to come back at this time with a very large rate increase to pay for recycled water capital projects. The financial impact of the increase would be damaging to single family ratepayers and businesses alike. Additionally, pursuing such a rate increase in such close proximity to the other recent rate increases risks poisoning the well for future rate actions to meet the City's infrastructure needs. The City and SDCWA will continue to pursue state bond funds and other outside sources of revenue to build on the already existing infrastructure for water reuse.

With respect to the specific options outlined in the study, while the indirect potable reuse option outlined in the study for North City (NC-3), uses the most recycled water it will also require a significant upfront capital cost (in 2005 dollars) of $237.6 million. Additionally, it is not clear that the San Diego public is any more ready for indirect potable reuse now than it was in 1999. This would mean an extensive and expensive education campaign to try to convince ratepayers that this option is safe and necessary.

The study outlines a number of viable non-potable projects that will expand the use of recycled water that the City might want to pursue with non-rate payer funds. Of the non-potable options offered for North City: NC-1 would be the preferred alternative. It provides the greatest capacity (73% for NC-1 versus 69% for NC-2) of the two non-potable options; it also has the lowest initial capital costs. Additionally, it could be approached in stages with the final more expensive stages being re-engineered or abandoned for better alternatives.

Because of the recent recycled water agreement with the Otay Water District it is estimated that the South Bay Facility will see a significant jump in their use recycled water. Additionally, CalTrans and Border Patrol have expressed interest in using recycled water in the South Bay area. However, expansion of our customer base is currently limited by the wastewater flows into the South Bay Plant. The capacity for the South Bay Plant is 15 million gallons per day (MGD). Because the South Bay area of the City is still growing, we have yet to receive that much wastewater to the plant. We are currently treating all of the wastewater we receive at that plant

and delivering it to customers in the South Bay area as reclaimed water. Therefore there is currently no need to implement any of the South Bay options at this time.

Point Loma Waiver and Water Reuse:

My decision on whether or not to pursue a waiver for Secondary Treatment at Point Loma, expected later this fall, will be based on the environmental science and the cost to the ratepayers. The Independent Scientific Review Panel will release their findings in early October and any decisions regarding the submittal of the waiver and/or negotiating with potential litigants before that release would be premature.

Additionally, trying to force the public's hand by manufacturing a link between the two issues in order to force the City into Indirect Potable Reuse risks a significant public backlash and is fraught with peril. The City may find itself not only paying for IPR but also a $1.5 billion secondary treatment facility. Therefore it is my recommendation that the decision be made on Secondary Treatment after the Scientific Review Panel comes back and any decision made on the waiver should be made on the merits of the science and rate payer issues of secondary alone.

Increasing the Water Supply:

While my position on indirect potable reuse is clear, there are a variety of other water supply options available to the city to supplement our existing local supplies and to protect against threats to our imported water supply. These include groundwater recovery, seawater and brackish groundwater desalination, expanding non-potable use of recycled water, enhanced landscape conservation and other water-use efficiency projects. Additionally, many of these options can be implemented much sooner and less expensively than indirect potable reuse.

It should be noted that the Water Department is currently working on initiatives in all of these areas. For instance, following the December 2002 City Council approval of the Long-Range Water Resources Plan (2002-2030), a groundwater strategy was initiated. A production well has been completed downstream of San Vicente dam with a connection to the raw water pipeline. A cooperative program with the U.S. Geological Survey was started and a Mission Valley monitoring well has been installed. The San Diego Formation brackish groundwater desalination feasibility study was approved for a Department of Water Resources (DWR) grant and a monitoring well has been completed with the report to DWR scheduled for completion late 2007. In the San Pasqual Valley, the Groundwater Management Plan is complete and scheduled to go to NR&C, a Brackish Desalination Demonstration Project has begun with an estimated completion date of 2010 ($3 million including a $1.5 million DWR grant), and a Conjunctive Use Program is underway (3 years and $750,000 grant funding assistance from County Water Authority).

Additionally, the City's Water Conservation Program directly accounts for over 28 million gallons per day of potable water savings per year. This savings has been achieved by creating a water conservation ethic; implementing programs, policies and ordinances designed to promote water conservation practices; and continuing comprehensive public information and education campaigns. The annual budget for the program is currently $2.7 million dollars. Anticipated new verifiable potable water savings is 1,285 acre feet per year.

And as already noted, the City has made a significant capital investment in the recycled water program, a locally controlled, drought-proof supply of water for San Diego. To date over $460 million has been spent on the two reclamation plants, distribution systems and related facilities. Approximately 25% of those costs were covered by State and Federal grants. Currently, the Water Department has limited funding for recycled water projects. $1 million per year has been allocated to expand the existing distribution system to reach customers. Over the course of the next 4-5 years these in-fill projects will save an additional 400 acre-feet of potable water per year. The Water Department is actively pursuing outside funding sources to expand these in-fill customer connection opportunities.

In all of these areas the City, County and SDCWA are leading a working group which will soon finalize the region's first Integrated Regional Water Management Plan (IRWMP) and grant applications to secure Prop 50 and at a later date Prop 84 funds. Many of these options are included within that IRWMP. I look forward to continuing to work with our regional partners to identify projects that provide results in as cost efficient and time efficient manner as possible.

In addition to this regional plan, I am asking City to take the following actions:

1. I have directed the City's Water Department Director to return in 90 days with a report outlining the near-term water supply enhancement projects and programs available to the City, with identified priorities, timelines, estimated benefits, projected costs and outside funding sources.
2. As part of this effort, I have directed the Water Department to meet with our imported water suppliers- the San Diego County Water Authority and the Metropolitan Water District of Southern California- to explore any newly available programs, conservation audits and incentives to reduce water use and to achieve greater implementation of recycled water use on public facilities.
3. I have directed all city departments to conduct thorough assessments of water use in their respective departments and city facilities- including identification and fixing of any leaks- and identification of immediate water-savings opportunities. Staff will then implement those that we are able to.
4. I have asked all departments to ensure the City is rigorously following wise water-use practices in every facility and in everything we do. I am also asking them to step forward with their ideas on how the City can achieve water reliability.
5. I have asked all city departments that own property adjacent to existing recycle water pipelines, to retrofit their existing irrigation systems to accommodate recycled water. The Water Department will work with departments to identify city properties which fit this criterion.
6. In all of these efforts, I am directing all departments to work with the Water Department to track and quantify the water savings and new supply production.