AMERICAN ASSEMBLY II STATEMENT

City of San Diego
Water Reuse Study 2005

American Assembly Workshop II
July 11, 12 and 14, 2005

American Assembly II Statement
Regarding the Water Reuse Study 2005

Adopted on July 14, 2005

San Diego, California

Introduction

The City of San Diego has been tasked through City Council Resolution R-298781 to conduct an impartial, balanced, comprehensive and science-based study of all recycled water opportunities so the City of San Diego can meet current and future water needs.

The mission of the Water Reuse Study 2005 (Study) is: *To pursue opportunities to increase San Diego's water supply reliability and optimize local water assets, through an open and comprehensive study of recycled water with the involvement of the community.*

The five primary goals of the Study are:

1. To identify and develop opportunities for uses of recycled water that protect public health and safety.
2. To identify and develop opportunities for recycled water that are cost-effective, environmentally sustainable and reflect public values through a fair and unbiased evaluation.
3. To partner with residents, media, businesses, industries, organizations, schools and government to assist public policy makers in making informed, value-based decisions on how to best use recycled water.

4. To educate the public to expand the public's awareness, knowledge and involvement, and present information in a way that is understandable and accessible to all San Diegans.
5. To provide sound technical, environmental, and economic evaluations of the opportunities, with plans, to submit to the City Council for consideration.

A group of community leaders and stakeholders were asked to participate in an American Assembly regarding "Water Reuse Goals, Objectives, Options and Criteria" for the City of San Diego. An American Assembly workshop was conducted in October 2004, and the participants provided input to the City on the key issues and evaluation criteria for the assessment of recycled water use opportunities.

Since that workshop, the Study team has integrated American Assembly recommendations, stakeholder input and technical information to develop potential strategies for both non-potable and indirect potable use. An Independent Advisory Panel of experts provided insight, critique, and recommendations regarding these strategies. A summary of the proposed strategies and analysis is presented in the Water Reuse Study 2005.

The second American Assembly workshop was held in July 2005 to discuss the Study and provide input to the City Council on the identified strategies. American Assembly participants (Assembly) are listed in Appendix A. Members of the Independent Advisory Panel were in attendance. The Assembly discussed the six strategies identified in the Study. The strategies represent non-potable uses, mixed non-potable/indirect potable uses and indirect potable uses for both the South Bay Water Reclamation Plant study area and the North City Water Reclamation Plant study area.

The six strategies are:

South Bay Strategy 1 (SB-1) expands the South Bay Water Reclamation Plant's current non-potable system for Otay Water District and Sweetwater Authority non-potable uses (e.g. landscape irrigation and industrial water uses). A total of 13,040 acre-feet per year (AFY) of water would be developed by this strategy.

South Bay Strategy 2 (SB-2) is a "mixed use" strategy that involves expansion of the non-potable system to serve Otay Water District, followed by a small-scale indirect potable use project at Otay Reservoir. A total of 8,960 AFY of water would be developed by this strategy.

South Bay Strategy 3 (SB-3) represents an indirect potable use option and involves expansion of the non-potable system to serve Otay Water District, followed by a full-scale indirect potable reuse opportunity at Otay Reservoir. A total of 12,660 AFY of water would be developed by this strategy.

North City 1 Strategy (NC-1) expands the non-potable system to serve infill customers located adjacent to the existing system, as well as Phase III Rancho Bernardo, the Central Service Area, and a Rose Canyon wetlands project. A total of 19,680 AFY of water would be developed by this strategy.

North City Strategy 2 (NC-2) involves expansion of the non-potable system to serve infill, Phase III Rancho Bernardo, and a small-scale indirect potable reuse project at Lake Hodges. A total of 18,040 AFY would be developed by this strategy.

North City Strategy 3 (NC-3) expands the non-potable system to serve infill, followed by a large-scale San Vicente indirect potable use project sized to maximize available supplies. A total of 23,760 AFY would be developed by this strategy.

The Assembly discussed and recorded their perspectives on the reuse strategies. The Assembly assessed each strategy's performance against evaluation criteria approved in the first American Assembly workshop (see Appendix B). This Assembly Statement reflects consensus views of the participants and was affirmed in plenary session. Significant minority viewpoints are included.

American Assembly II Statement

The Assembly believes the Water Reuse Study 2005 provides a useful and appropriate analysis of reuse strategies that can be used to inform policy-makers. The Assembly reviewed the technical information and believes the Study provides a sound basis for the deliberations and conclusions of the American Assembly. The Assembly is appreciative of the technical support of members of the City's Independent Advisory Panel and Study Team.

The Assembly unanimously agrees that current technology and scientific studies support the safe implementation of non-potable and indirect potable use projects.

The Assembly considers advanced treated (purified) water to be superior in quality to other sources (e.g. Colorado River, State Project Water). The Assembly acknowledges that upon the outset of the study, many participants had reservations regarding the safety of the purified water, but have resolved those concerns through review of this Study and the American Assembly process. The participants are confident that the current research and technological advances in water treatment will produce water of higher quality than currently available. Advanced treatment and long-term storage, current water quality regulations, standards and regulatory oversight were viewed as reasonable precautions to ensure public health and safety. Some participants of the Assembly recommend that regulations be revised to allow for direct potable use.

The American Assembly participants believe that the City of San Diego must maximize the beneficial use of local water resources. The City of San Diego has invested $480

million developing one of the most sophisticated water reclamation systems in the country. The City must take a leadership role to become a national model and further optimize our investment by implementing large-scale water purification. Maximizing local water resources increases water reliability by reducing our dependence on imported water supplies, has important environmental benefits, and is sustainable. Sustainable solutions may not have the lowest initial costs but represent an investment in San Diego and improve the quality of life for future generations. The Assembly believes that indirect potable use broadens the possible uses of this resource and is the most flexible approach to maximize the beneficial use of the City's water resources.

The Assembly believes that the costs of the strategies are affordable and equitable, and considers the strategies to be a necessary investment in our future. The Assembly recognizes that the impacts of rate increases to all customers must be considered and managed. The City should pursue grants and other available sources of state and federal funding to decrease costs to ratepayers. The strategies become more financially attractive as costs of imported water rise over the next decade.

The Assembly feels that there are no environmental justice issues that would act as a significant impediment to the implementation of indirect potable use strategies. The Assembly concludes that service would be provided to a wide-range of social and economic communities. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. The

Assembly believes that with proper information and community participation, any public perception of environmental justice issues can be overcome.

The City can choose between non-potable and indirect potable uses. The Assembly strongly supports indirect potable use projects. Non-potable uses are supported to varying degrees.

Indirect potable use - The Assembly is nearly unanimous in their support for indirect potable use. The Assembly feels that this approach creates a new, sustainable supply of high quality water owned by the City. The Assembly believes that the science and technology is protective of the public's health and safety. The public and political perceptions must be addressed. The Assembly acknowledges that a small percentage of the public may not initially accept this approach.

Mixed indirect and non-potable uses - Mixed indirect and non-potable uses received varying degrees of support. The Assembly feels that the mixed approaches do not go far enough to optimize public benefits through indirect potable use.

Non-potable uses - A majority of the Assembly agrees that non-potable approaches meet the evaluation criteria. South Bay non-potable uses are noted as being more attractive due to lower costs. Although non-potable uses are supported, a majority of the Assembly believes that continuing expansion of the recycled water distribution (purple pipe) system is an expensive investment for the amount of water developed, and limits

the range of uses of the water. The Assembly has concerns regarding the projected use and expansion of non-potable water distribution systems, the operational challenges current non-potable customers are having, and the need for costly dual piping systems and backflow prevention. New or enhanced wetlands might be possible with this option but further research is required.

The Assembly believes that public perception is a critical issue needing significant and sustained outreach efforts to improve understanding and public acceptance of advanced treated (purified) water. Public acceptance of purified water can be improved by informing, engaging and listening to the public. Assembly participants had varying degrees of knowledge about water reuse when they attended the first American Assembly. They also held differing opinions on the safety and acceptability of purified water. Through a process of reviewing the information, becoming informed on the issues, attaining a level of comfort with the science, and an opportunity to tour a reclamation and advanced purification plant, Assembly participants now advocate the City pursue an indirect potable reuse strategy.

Components of a successful communications strategy must focus on:

- Explaining how the treatment process ensures the safety of the purified water
- Comparing the quality of purified water vs. imported water to drinking water standards, as imported water contains treated wastewater, runoff and discharges from agricultural, mining and industrial sources. (Currently, there are more than 620 discharge permits issued to entities along the Colorado River. Source: Colorado River Salinity Control Forum, 2002).

- Conveying the importance of sustainable, locally produced water availability
- Emphasizing potential benefits to local ocean water quality and protection of beaches
- Emphasizing water reliability to San Diego now and in the future
- Engaging well known local leaders as spokespersons
- Conducting reclamation and advanced purification plant tours
- Partnering with schools
- Tailoring outreach activities for pursued strategies
- Working with the media including TV news and radio personalities

Recommended Strategy for North City

The Assembly participants unanimously support strategy NC-3 (indirect potable use from North City Water Reclamation Plant). This strategy reduces reliance on imported water, has lower long-term costs, resolves current City litigation, distributes water broadly, and leads the City on a path towards water sustainability.

Recommended Strategy for South Bay

The Assembly participants expressed strong support for SB-1 and SB-3. The lower cost of SB-1 and the high percentage of water that is developed were attractive. However, SB-1 does not have the sustainability benefits that SB-3 offers and questions remain regarding dependency on a single large user. Many Assembly participants would favorably consider the SB-1 strategy if NC-3 (which emphasizes indirect potable use) is implemented.

ASSEMBLY CLOSING STATEMENT

The Assembly appreciates the opportunity to participate in this American Assembly on water reuse opportunities and to provide guidance to the San Diego City Council. The Assembly believes that properly designed and operated advanced water treatment processes, coupled with a diligent and publicly accessible water quality monitoring program, produce water of exceptional quality that is protective of public health. The Assembly participants are prepared to work with elected officials and the public in communicating the Assembly's adopted position on the findings of the Water Reuse Study 2005. In addition, the Assembly would like to participate in public outreach and education efforts on water reuse issues.

Appendix A

List of American Assembly II Participants

#	First	Last	Participant Identification
1	Elaine	Allen	Community representative, North Park resident
2	Joseph	Arlotto	Zoological Society of San Diego
3	Lee	Campbell	Community Representative CD-7, Tierrasanta Community Council
4	George	Diefenthal	Community Representative CD-3, Talmadge Maintenance Assessment District
5	Ed	Fletcher	Mayor's Advisory Board
6	Lois	Fong-Sakai	Asian Business Association
7	Drew	George	U.S. Green Building Council – San Diego Chapter
8	Terese	Ghio	Community Representative CD-1, BIOCOM
9	Marco	Gonzalez	Community Representative CD-6, San Diego Bay Council
10	Dawn	Guendert	San Diego Regional Chamber of Commerce
11	Dr. Gerald	Handler	Community Representative CD-1
12	William	Harvey	Community Representative CD-2
13	Kathy	Haynes	American Society of Civil Engineers
14	Rob	Hutsel	San Diego River Park Foundation
15	Ed	Kimura	Sierra Club
16	Michelle	Krug	Community Representative CD-4
17	Tiong	Liem	Asian Business Association
18	Maria	Mariscal	San Diego County Water Authority
19	Shawn	McMillan	Taiwanese Chamber of Commerce
20	Richard	Miner	Community Representative CD-3, Cherokee Point Resident
21	Chuck	Morgan	UCSD
22	Wayne	Nelson	Otay Mesa/Nestor Planning Committee
23	Jim	Peugh	Community Representative CD-2, San Diego Audubon Society
24	Phil	Pryde	San Diego State University
25	Mark	Robak	Metro Commission/Otay Water District
26	Javier	Saunders	Mayor, CWA Boardmember
27	Glen	Schmidt	American Society of Landscape Architects
28	Woo-Jin	Shim	Council Representative CD-1
29	Judy	Swink	Community Representative CD-2
30	Fred	Thompson	Mayor, CWA Boardmember
31	Muriel	Watson	Revolting Grandmas
32	Mayda	Winter	Metro Commission/City of Imperial Beach
33	Todd	Webster	Community Representative CD-3
34	Simon	Wong	Asian Business Association
35	Don	Wood	Citizen's Coordinate for Century 3, Water & Energy Committee

Appendix B

Evaluation Criteria for Assessment of Reuse Opportunities Adopted in the American Assembly I Statement

Criteria	Objective	Performance Measure
Health and Safety	To protect human health and safety with regard to recycled water use	Meets or exceeds federal, state and local regulatory criteria for recycled water uses
Social Value	To maximize beneficial use of recycled water with regard to quality of life and equal service to all socioeconomic groups	Comparison of beneficial uses and their effect on human needs and aesthetics, as well as public perception.
Environmental Value	To enhance, create or improve local habitat or ecosystems and avoid or minimize negative environmental impacts	Comparison of environmental impacts and/or enhancements, environmental impacts avoided, and permits required.
Local Water Reliability	To substantially increase the percentage of water supply that comes from water reuse, thereby offsetting the need for imported water	Increases percent of water recycling and improves local reliability.
Water Quality	Meets or exceeds level of quality required for the intended use and customer needs	To meet all customer quality requirements.
Operational Reliability	To maximize ability of facilities to perform under a range of future conditions	Level of demand met and opportunities for system interconnections and operational flexibility are addressed.
Cost	To minimize total cost to the community	Comparison of estimated capital improvement costs, operational costs, and revenues for each reuse opportunity, as well as comparison of estimated avoided costs such as future regional water and wastewater infrastructure costs and costs to develop alternative water supplies (e.g. desalination).
Ability to Implement	To evaluate viability or fatal flaws and assess political and public acceptability	Level of difficulty in physical, social or regulatory implementation.