

CONSULTANT SELECTION
REFERENCE CHECKS

Project: 2009 WRMP Update & PEIR Project

Project No: P1210

CONSULTANT NAME: PBS & J

1. "COMPREHENSIVE MASTER PLAN & PEIR"
CITY OF CHINO HILLS — Gary Cohoe PHONE: (909) 781-1869
 - When did your company last utilize the services of the consultant: 2006
 - Was the scope of work completed on time and within budget: Y/Y
 - Were the tasks completed in a professional and efficient manner: Y
 - If there were additional charges by the consultant, change orders, do you feel they were warranted or an attempt to increase the overall amount of the contract: WARRANTED
 - How would you rate this consultant: 1 2 3 4 5 6 7 8 9 10
 - Would you use them again? Y

2. SAN ELIJO JPA RECYCLED WATER MASTER PLAN — Mike Thornton PHONE: (760) 753-6203 x 72
 - When did your company last utilize the services of the consultant: 2005
 - Was the scope of work completed on time and within budget: Y/Y
 - Were the tasks completed in a professional and efficient manner: Y
 - If there were additional charges by the consultant, change orders, do you feel they were warranted or an attempt to increase the overall amount of the contract: WARRANTED
 - How would you rate this consultant: 1 2 3 4 5 6 7 8 9 10
 - Would you use them again? Y

3. "OTAY MESA TRUNK SEWER MASTER PLAN/ ALIGNMENT STUDY & PEIR"
CITY OF SAN DIEGO — Alan Navarro PHONE: (858) 292-6459
 - When did your company last utilize the services of the consultant: CURRENTLY UNDER CONTRACT (2001-2008)
 - Was the scope of work completed on time and within budget: Y/Y
 - Were the tasks completed in a professional and efficient manner: Y
 - If there were additional charges by the consultant, change orders, do you feel they were warranted or an attempt to increase the overall amount of the contract: N/A, NO CHARGES WARRANTED; EXCELLENT BOOK-KEEPING
 - How would you rate this consultant: 1 2 3 4 5 6 7 8 9 10
 - Would you use them again? Y

4. _____ PHONE: _____
 - When did your company last utilize the services of the consultant: _____
 - Was the scope of work completed on time and within budget: _____
 - Were the tasks completed in a professional and efficient manner: _____
 - If there were additional charges by the consultant, change orders, do you feel they were warranted or an attempt to increase the overall amount of the contract: _____
 - How would you rate this consultant: 1 2 3 4 5 6 7 8 9 10
 - Would you use them again? _____

PBS d J new tabs



June 7, 2007

Ken Simmons, PE
Project Manager
Otay Water District
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978-2096

**RE: Proposal for 2009 Water Resources Master Plan Update and
Program Environmental Impact Report**

Dear Ken,

The 2009 Water Resources Master Plan Update (WRMP) will build on the District's successful 2002 in-house plan to produce comprehensive, system-wide water and recycled water planning documents that will help the Otay Water District (District) build its future. PBS&J will fully integrate your GIS database and approved Sub-area Master Plans into state-of-the-art land use and hydraulic models to evaluate future water demands and infrastructure needs. Our findings will be fully documented such that these reports will be valuable tools to District staff and defensible documents aimed to meet regulatory requirements and resist legal challenges.

The PBS&J Team will provide the District with these key project benefits:

- ❖ Our proficient technical planning capabilities and familiarity with local issues to assure an accurate and functional WRMP update
- ❖ Our in-house, fully integrated GIS and modeling staff expertise in linking future land use and SCADA data to the InfoWater hydraulic model
- ❖ Our on-the-ground knowledge of evolving service areas in the Otay Water District, such as Otay Mesa, which will provide first-hand consideration of major land use changes
- ❖ Our efficient business organization that encompasses both engineering and environmental expertise under a single firm, which enhances communication and minimizes our need for subconsultants
- ❖ Our ability to produce successful, cost-efficient master planning documents and award-winning and legally defensible EIR documents

These benefits, coupled with our strong technical master planning and environmental approach, will result in a successful project for District staff and your Board. We are committed to advancing the District's mission to: *"...provide safe, reliable water, recycled water and wastewater services to our community in an innovative, cost efficient, water-side and environmentally responsible manner."*

OUR EXTENSIVE, SPECIALIZED EXPERIENCE AND VAST ARRAY OF TECHNICAL RESOURCES RESULTS IN THOROUGH INFRASTRUCTURE AND OPERATIONAL RECOMMENDATIONS THAT ARE COMPATIBLE WITH FUTURE WORK EFFORTS.

- ❖ Our Water Resources Master Plan Project Manager, Mark Elliott, has more than 23 years of local master planning and hydraulic modeling experience.
- ❖ Our Program EIR Project Manager, Kim Howlett, has produced award-winning environmental documents for projects throughout the County.
- ❖ PBS&J staff has completed more than 20 master planning projects in the last 5 years, and we have a long list of satisfied clients.



Ken Simmons, PE

June 7, 2007

Page Two

- ❖ PBS&J's GIS Information Solutions group is an in-house operation – GIS experts, Database Application Developers with ARC hydraulic model application experience are located right here in San Diego.
- ❖ PBS&J's in-house Financial Services group has unparalleled local experience in evaluating capital improvement programs and funding opportunities.
- ❖ Through past and current contracts with local developers, energy enterprises, Otay Water District, City of Chula Vista, the County of San Diego and the City of San Diego's Water Reuse Study and Otay Mesa Community Plan Update, PBS&J has comprehensive knowledge of all water and recycled water planning projects in the Otay Water District's service area. We will hit the ground running.
- ❖ Our relationship with regulatory agencies is one of trust and confidence and good will. We can work closely with these agencies to help the District meet their regulatory requirements.

The PBS&J Team brings together the right combination of master planning, technology, and environmental resources to help the District efficiently and cost-effectively master plan for the future, develop a legally defensible EIR and produce a value-driven capital improvement program. Our approach, experience and collaborative style will provide District staff the confidence to stand in front of your Board with value-driven recommendations.

Thank you for considering us for this important project. We look forward to providing the District with our very best service. Please feel free to call me at 715.347.4635 or James at 760.525.6230.

Sincerely,

Mark B. Elliott, PE
Project Manager

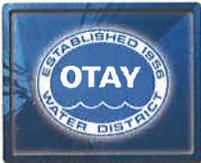
James J. Strayer, PE
Principal-in-Charge

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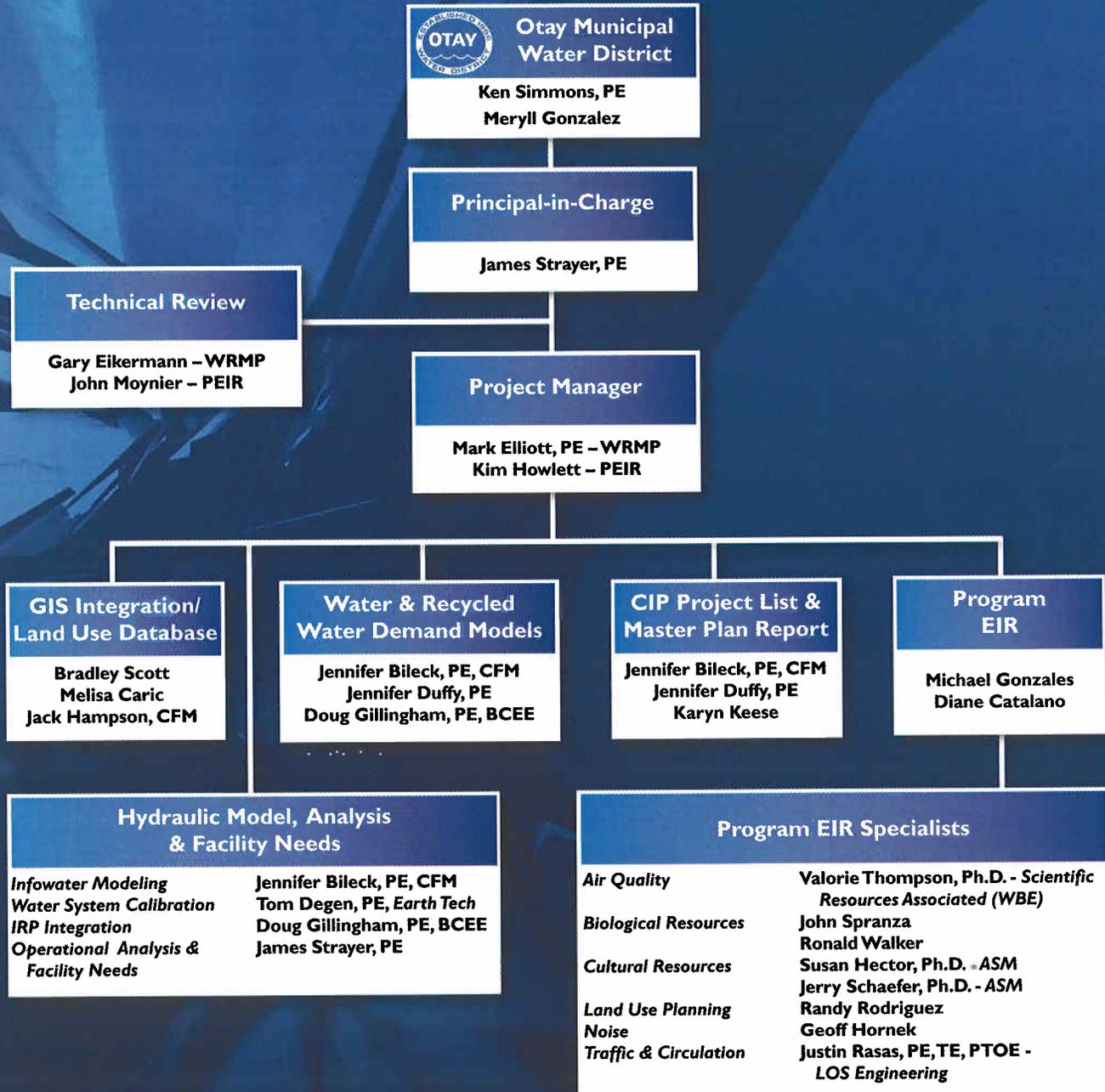
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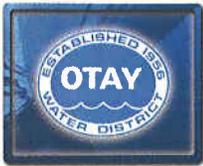
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Project Team

Organization Chart





Project Organization and Key Personnel

PBS&J provides the highest quality product by assigning the best qualified personnel

PBS&J's firm-wide staff resources are composed of more than 3,900 employees in more than 50 technical and support service disciplines. In addition to the professional staff in each of our local offices, specific technical expertise, technical review and project support can be provided from PBS&J offices nationwide. PBS&J believes that the key to providing effective service and creating value for our clients is to provide an experienced and committed staff to our clients' projects. Our staff takes ownership of their work, and strives for success and the fulfillment of our clients' goals. Anything less is unacceptable.

The PBS&J Water Resources Master Plan and Program EIR team has extensive knowledge of local conditions and has identified the most critical challenges that must be addressed. PBS&J's water resources engineering staff have performed hydraulic analyses of most of the water and recycled water projects in the Otay Water District's service area. Our California environmental staff is made up of approximately 100 specialists with extensive experience in CEQA documentation and in planning, biological resources, and air quality and noise studies. Because of PBS&J's work in the vicinity, much of the data required for this new Master Plan and Program EIR is already in our hands. Our positive working relationships with the District, the City of San Diego Water Department, MWWD, the City of Chula Vista, and local developers will facilitate and expedite access to any additional data required.

Our team's organizational structure is illustrated on page 6. Following are summary descriptions of the qualifications for a few of our key PBS&J personnel. Their education and certifications are listed on the Qualifications and Experience table at the end of this section.

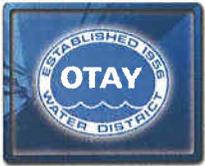
JAMES STRAYER, PE **Principal-in-Charge**

As Associate Vice President and Division Manager for PBS&J responsible for all water and recycled water operations in Southern California, James Strayer will serve as the Principal-in-Charge for the Otay Water District (District) Water Resources Master Plan (WRMP) Update and Program Environmental Impact Report (PEIR). He served in a similar capacity for the Chino Hills Water Master Plan and Program EIR. This experience brings to the District proven leadership to fully integrate engineering and environmental planning and to win your Board's approval. Mr. Strayer specializes in managing water and recycled water master planning projects. He values his clients and understands the need to respond to their concerns. From 1997 to 1999, Mr. Strayer served as an extension of the District's engineering staff, working out of the District's office; thus, he is intimately familiar working with engineering, operations and environmental staff and is very knowledgeable on the District's water and recycled systems.

As Principal-in-Charge, Mr. Strayer will make sure that this project receives the necessary staff resources to meet the promised schedules within budget. He has experience as Principal-in-Charge and as Project Manager on master plans, pump stations, pipelines, and reservoir projects. His extensive project management training makes Mr. Strayer the right person to oversee the project, to provide prompt response to any project need, and to provide appropriate oversight for every component of this master plan.

MARK ELLIOTT, PE **Project Manager – Water Resources Master Plan**

Mark Elliott has some of the most extensive San Diego County experience in water and recycled water master planning, as well as prominent national master planning experience. He will bring this experience to the Otay Water District to complete a comprehensive plan update integrated with the latest modeling and GIS technologies. Mr. Elliott has been involved in planning issues with both



municipal agencies and private developments for more than 23 years, including water modeling studies on the District's existing water system and preparation of several Subarea Master Plans (SAMPs) within the Central Service Area; and, therefore, he offers the District his knowledge of present-day and future key planning issues.

As Project Manager, Mr. Elliott prides himself on passionate service to the client, honest and open communication, building teamwork between the District's staff and his planning staff, and making this a successful project by winning your Board's approval.

A summary of Mr. Elliott's extensive master planning and hydraulic modeling qualifications include:

- ❖ Project Manager for the 2006-2007 South Coast Water District Infrastructure Master Plan, which included new InfoWater models for the water distribution and recycled water systems, and full GIS integration and updates.
- ❖ Project Manager for major Air Force Base (AFB) Water Master Plans (2005-2006) throughout the United States. He managed the development of calibrated InfoWater water models for Whiteman AFB, Kansas City, Missouri; Patrick AFB, Cocoa Beach, Florida; Davis-Monthan AFB, Tucson, Arizona; Minot AFB, North Dakota; and Offutt AFB, Omaha, Nebraska.
- ❖ Project Manager for the 2005 Chula Vista Integrated Wastewater and Drainage Master Plan, which provided major infrastructure planning to respond to growth in one of the state's fastest growing cities.
- ❖ Project Manager for the 2001 Padre Dam Municipal Water District Integrated Facilities Plan, which included water supply and distribution, recycled water and wastewater master planning elements.
- ❖ Extensive master planning and modeling project experience within San Diego County, including:
 - ▶ Vista Irrigation District Water Master Plan
 - ▶ Carlsbad Recycled Water Master Plan
 - ▶ Santa Fe Irrigation District Water Master Plan
 - ▶ San Dieguito Water District Water Master Plan

- ▶ City of Escondido Water Master Plan
- ▶ County of San Diego East Otay Mesa Master Plan
- ▶ City of La Mesa Wastewater Master Plan
- ▶ City of National City Wastewater Master Plan

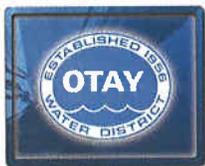
KIM HOWLETT

Project Manager – Program EIR

Mr. Howlett's CEQA and NEPA documentation career spans 30 years with the preparation of environmental documents for more than 250 projects in southern California, ranging from public infrastructure facilities to private and public land development. He served as the Project Manager for the Otay Water District's 1996 Master EIR. The public and private development projects that he has addressed have ranged in size from a few acres to thousands of acres, and have required a variety of discretionary approvals, including University of California long range development plan amendments, conditional use permits, general plan amendments, coastal development permits, tentative subdivision maps, annexations and specific plans. The types of projects he has evaluated include commercial (hotel, marina, office and retail, institutional, church, police station, schools and universities), mixed-use development, habitat management plans, redevelopment projects and public infrastructure (roadway, bridge, water and sewer lines, reservoirs, wastewater treatment plants, and electrical and solid waste facilities).

Mr. Howlett's EIRs have won the Outstanding Environmental Analysis Document award from the San Diego Chapter of the Association of Environmental Professionals (AEP) in four of the past five years. His project management experience relevant to the District's WRMP and Program EIR includes:

- ❖ Otay Mesa Trunk Sewer EIR
- ❖ Salt Creek Storm Drain Treatment Facility Mitigated Negative Declaration (MND)
- ❖ City of San Diego Metropolitan Sewerage System Upgrade Joint EIR/EIS
- ❖ 1996 Otay Water District Water Resources Master Plan MEIR



GARY EIKERMANN **Technical Review**

Gary Eikermann will provide technical review of the engineering documents prepared for this project. Mr. Eikermann's 30-year career in water resources management provides a unique blend of regional expertise with diverse water and recycled water master planning skills. A major portion of his career experience has been as a consultant to Orange County, Inland Empire, and San Diego County water and wastewater agencies. Mr. Eikermann served as Principal-in-Charge on the Chino Hills Water and Recycled Water Master Plan and Program EIR. He has also recently provided recycled water, wastewater, and groundwater planning in San Diego, Corona, and San Geronio Pass. Mr. Eikermann was a Director on the Coastal Municipal Water District in south coastal Orange County, with a service area population of about 250,000. As part of the PBS&J Quality Control Assurance Program (QCAP), Mr. Eikermann is extremely qualified to provide technical review on this project.

JOHN MOYNIER **Technical Review**

John Moynier will provide technical review of the environmental documents prepared for this project. Mr. Moynier is widely recognized for his expertise in the areas of water resources planning, public outreach, and environmental analysis. His primary areas of professional strength and experience are in project management, conducting California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) analyses for water and wastewater projects, developing regional water plans, and coordinating community outreach efforts. Mr. Moynier understands the complex needs of water utilities, having begun his career in operations at a regional water district. Prior to joining PBS&J, he served for nearly a decade as Public Affairs and Planning Manager for the Mammoth Community Water District. In this role, he managed the planning efforts for the District, including development of the CIP

and enterprise programs, recycled water program, and the District's GIS program. He also managed their successful water conservation and demand reduction programs, as well as their customer service programs, water and wastewater rate programs, and public outreach programs.

Mr. Moynier has recently managed a number of interesting and complex projects for a broad range of public and private water utility clients throughout the state. He has completed more than a dozen WSAs under SB 610/221 and has become a sought-after speaker on the intricacies of this process. As part of the PBS&J QCAP, Mr. Moynier is extremely qualified to provide technical review of the environmental components of this project.

JENNIFER BILECK, PE, CFM **Master Plan Report and Hydraulic Modeling**

Jennifer Bileck is a Senior Engineer at PBS&J with extensive experience in hydraulic modeling of both water and recycled water systems, including systems within the Otay Water District. Ms. Bileck has a background in water, recycled water, and sewer master planning and hydraulic modeling, developer-related studies, and hydrologic studies. Most recently, Ms. Bileck was the project engineer in charge of hydraulic modeling for the Otay Mesa Community Plan Update. This project evaluated several land use alternatives by assigning land uses to parcels and projecting future demands for all alternatives for both water and recycled water. Over the past four years, Ms. Bileck has worked on numerous water and recycled master plans for developers within Otay Water District and is familiar with the District's existing and planned facilities. Ms. Bileck's talents lie in compiling information into a comprehensive, user-friendly hydraulic model in order to produce high quality technical analyses, ascertaining the issues of concern, and developing documentation to support recommendations.

Ms. Bileck and Mr. Elliott have worked together for the past seven years on similar modeling projects, which assures proactive team communication.



JENNIFER DUFFY, PE Master Plan Report and Recycled Water

Jennifer Duffy is a Senior Engineer and Project Manager at PBS&J, with 25 years of master planning civil and environmental engineering experience. Ms. Duffy will be directly responsible for leading the Recycled Water Master Plan update for the District and assembling the WRMP update document. Ms. Duffy has an impressive background in recycled water master planning and design, water and sewer master planning and alignment studies, pump station design, and hydrologic studies. Most recently, Ms. Duffy was the project manager in charge of obtaining a revised Waste Discharge Permit for the District's Ralph W. Chapman Water Reclamation Facility. This project was accomplished under budget within a very short time frame, allowing the District to accept recycled water from the City of San Diego before the summer peak irrigation season. She was also the project manager for the City of San Diego's Recycled Water 2005 Master Plan Update, which included extensive evaluations of the City's southern distribution system, its agreement to sell recycled water to the Otay Water District and the plans to integrate the two systems.

Over the past five years, Ms. Duffy has worked on numerous water and recycled master plans for developers within the Otay Water District and is familiar with the District's existing and planned facilities. She played a key role in the Otay Mesa Trunk Sewer Alignment Study prepared for the City of San Diego in 2003, facing complex issues and requiring coordination among many state and local agencies. Ms. Duffy's talents lie in researching and assembling information from numerous agencies quickly and efficiently to produce high quality technical documents, ascertaining the issues of concern and negotiating solutions to meet the needs of the client.

Ms. Duffy and Mr. Elliott have worked together for more than 10 years, which will be invaluable to Otay Water District in producing a high quality WRMP.

DOUG GILLINGHAM, PE, BCEE Water & Recycled Water Demand Models

Mr. Gillingham, a Board Certified Environmental Engineer, brings 25 years of relevant experience in conveyance system planning, decision analysis, public and agency coordination, and the development of engineering studies in support of and in coordination with environmental documentation teams. He is expert at conducting resource planning, water demand forecasting and facility planning projects in support of client needs for reliable, economical, and environmentally acceptable water supply solutions. For this project, Mr. Gillingham will bring his planning expertise to optimize the District's resources and efficiently plan for future infrastructure needs.

As a team member on the Emergency Storage Project (ESP - Operations Planning project, Mr. Gillingham led PBS&J's work in providing project support services to the San Diego County Water Authority's \$900 million ESP. The planning effort for that project required in-depth knowledge of the hydraulics of the County Water Authority's aqueduct system. Mr. Gillingham has been directly and indirectly involved in the project for more than 10 years, bringing in-depth experience and lessons-learned on effective reliability planning for the San Diego region.

Example excerpts from his extensive resume include the following:

- ❖ Mr. Gillingham is leading the PBS&J team in the planning and preliminary design of the conveyance facilities for the 50 mgd Carlsbad Desalination Plant.
- ❖ Mr. Gillingham is Project Director for PBS&J's preparation of an EIR/EIS for the San Diego County Water Authority's Carryover Storage Project (San Vicente Dam Raise). Mr. Gillingham's responsibility in this role is the successful integration of the project's engineering and environmental work teams.



KARYN KEESE **CIP Project List & Cost Evaluations**

Ms. Keese has more than 20 years of expertise in public finance and management in both the public and private sectors. She has extensive experience in long-range financial plans and cost-of-service studies, operating and capital budget systems, grants management, intergovernmental relations and institutional and market analysis for water, wastewater, and storm water utilities. As a valuation specialist for the San Diego County Water Authority, Ms. Keese is responsible for the development of the valuation methodologies, applying those methodologies to the asset database, and generating the valuations for all of the County Water Authority's significant assets.

Ms. Keese has completed more than 500 financial and management plans for public utilities. Her extensive experience in determining the value of utility assets is evident by the long list of satisfied clients. Her recently completed projects include the following financial/valuation studies: the Blue Plains Users, the San Antonio Water System, the City of Lemon Grove, and the Olivenhain Municipal Water District. On this project, Ms. Keese will provide valuable input in the development of the District's Capital Improvement Project list and cost evaluations.

MICHAEL GONZALES **Program EIR**

Michael Gonzales has more than 20 years of environmental compliance and project management experience in Southern California, including six years as the senior planner and environmental review coordinator for the City of San Diego Water Department Capital Improvements Program. He has extensive knowledge of CEQA, NEPA, storm water compliance regulations, and other local and regulatory agency permit requirements. He has managed projects in both the public and private sectors. His projects have required a variety of discretionary approvals, including conditional use permits, general plan amendments, coastal development permits, tentative subdivision maps, annexations and specific plans.

The types of projects Mr. Gonzales has evaluated include public infrastructure (water treatment plants, pipelines, reservoirs, reclamation systems, and freeway and roadway improvements), general plans, residential and commercial developments, mixed-use developments, and recreation and revegetation projects. Relevant projects include:

- ❖ City of San Diego Water Department Capital Improvements Program
- ❖ Ramona Municipal Water District Environmental Studies
- ❖ Escondido Hills R3B Reservoir Expansion Final EIR
- ❖ San Diego County Water Authority Distribution Plan Final Program EIR

DIANE CATALANO **Program EIR**

Ms. Catalano has seven years of progressively responsible experience working as an environmental scientist/project manager. She has worked extensively on both CEQA and NEPA compliance documents including EIRs, Environmental Impact Statements, Negative Declarations, Environmental Assessments, Categorical Exclusions, Constraints Analyses, and Initial Studies. Ms. Catalano has been responsible for permitting coordination with resource agencies, including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the California Coastal Commission, the California Department of Fish and Game, and the San Diego Regional Water Quality Control Board. Her duties have included managing and organizing projects, delegating work responsibilities, setting deadlines and submittal dates, conducting field visits, writing and reviewing document sections, and coordinating with clients, subconsultants, lead agencies and resource agencies. Ms. Catalano's recent project experience includes the Otay Trunk Sewer Project EIR, the UCSD Long Range Development Plan EIR, and the Pala Pipeline Project.



BRAD SCOTT **GIS Integration/Land Use Database**

For this master plan, Brad Scott will oversee the integration of GIS data with the District's hydraulic models. Mr. Scott is a Senior Developer with PBS&J's Information Solutions division. He has more than ten years of experience with GIS, database management and computer programming. His expertise includes system needs assessments, GIS application development, large-scale data management applications, programming, spatial analysis, cartography and data collection/creation. Mr. Scott is a technical leader lending his expertise on a variety of projects throughout the company. His primary focus is on integration of the latest GIS and information technologies for our clients, as well as for the entire PBS&J organization.

MELISA CARIC **GIS Integration/Land Use Database**

Melisa Caric is a GIS Analyst II in PBS&J's Information Solutions division. Ms. Caric has more than four years of experience with data research and integration, conversion, editing, software development and map production. As a GIS analyst, Ms. Caric is skilled in GIS data conversion, coordinate system transformation, automated map production and spatial analysis. Her expertise includes the use of ArcGIS and its extensions, ArcPad, ARC/INFO, Avenue, Arc Macro Language (AML), and UNIX system tools. As a lead technical coordinator for field data collection applications at PBS&J, Ms. Caric has deployed numerous field applications for environmental, transportation and public works projects utilizing a variety of GPS systems. She is currently focused on providing turnkey field collection services that include initial Geodatabase design, collection methodology, mission planning, field crew management, data quality assurance/quality control and final map production in ArcGIS.

TOM DEGEN, PE - EARTHTECH **Water System Calibration**

Tom Degen, from EarthTech's National Drinking Water Division, will serve as a subconsultant to assist in the calibration of the water system model through the use of field pressure monitoring equipment. He has more than 20 years of experience in water system planning and modeling throughout the United States. Mr. Degen's calibration team has extensive pressure monitoring equipment and a successful track record of calibrating water system models. He is a nationally recognized leader in field calibration. This team recently presented at the national American Water Works Association Conference, specifically on this subject. In the past three years, this team has successfully calibrated more than 20 water system models for communities and municipalities throughout the United States ranging in size from 10,000 to 75,000 people.

RANDY RODRIGUEZ **Land Use Planning**

Randy Rodriguez has more than ten years of experience in urban and environmental planning in San Diego County. His experience in both the public and private sectors involves natural communities conservation planning, preparation/review of environmental documentation for compliance with CEQA and NEPA, and securing Clean Water Act Corps of Engineers 404 permits and Regional Water Quality Control Board 401 certification, CDFG Streambed Alteration Agreements and Coastal Development Permits. Mr. Rodriguez's expertise includes managing medium to large projects ranging from urban redevelopment, general and community plan updates/amendments to subdivisions, habitat restoration projects, watershed planning, public utilities and infrastructure and specific site development.

JOHN SPRANZA **Biological Resources**

John Spranza serves in both managerial and technical roles. As an environmental specialist for more than nine years and a CEQA specialist for six years, he has been



involved with the preparation and/or management of natural resource, open space and trails, and watershed planning studies; CEQA and NEPA documentation; wetlands permitting; and aquatic and terrestrial restoration and management plans for a variety of agencies, municipalities, and NGOs including the Los Angeles County Flood Control District, Orange County Water District, Santa Ana Watershed Project Authority, Southern California Edison, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, University of California, Bureau of Reclamation, Army Corps of Engineers, and numerous other public agencies and private entities throughout the United States.

RONALD WALKER **Biological Resources**

Ron Walker has more than 20 years of experience conducting biological assessments, construction monitoring, constraints analyses, wetland studies and delineations, and wildlife inventories, as well as developing mitigation plans and strategies. His project experience spans a variety of biological issues, although his technical strength is associated with raptors. He has held Federal Migratory Bird Treaty Act and Nevada Department of Wildlife permits, as well as a Memorandum of Understanding from the California Department of Fish and Game (CDFG) to construct artificial nesting burrows and to conduct excavation and relocation of burrowing owls.

GEOFF HORNEK **Noise Specialist**

Geoff Hornek is an environmental engineer and scientist with more than 20 years of experience managing projects and developing complex technical environmental documents with emphasis on air quality and noise analysis. He is well-versed in federal and state air pollutant rules, statutes, and permit conditions, having prepared numerous technical reports for a variety of industrial, commercial and residential development projects. His expertise includes assessing and developing mitigation

strategies for environmental challenges related to population and economic growth with special emphasis on air pollution and noise issues. Mr. Hornek's technical capabilities include measuring ambient air pollutant and noise levels, performing computer-based air dispersion/noise attenuation modeling, conducting air toxic health risk assessments, and designing environmental alternatives to identify and mitigate air pollutant and noise problems and their related health impacts.

Project Experience and References

The projects described in this section are excellent examples of our team's comprehensive master planning and Program EIR experience, including hydraulic modeling, water supply evaluations, technology plans, existing system condition assessments, development of long-range capital improvement programs, environmental review, and financial planning.

We are proud of our past record of performance, and encourage you to contact any of our references to better assess our level of service.

CHINO HILLS COMPREHENSIVE MASTER PLAN AND PROGRAM EIR

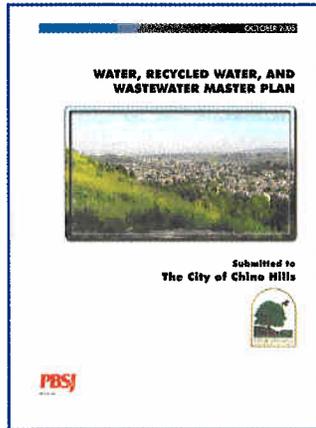
Client: City of Chino Hills
Reference: Garry Cohoe, PE
Former Chino Hills City Engineer
909.781.1869 (cell)

The City of Chino Hills selected PBS&J to perform integrated master planning for their Water Distribution System, Water Supply Plan, Recycled Water Supply, Wastewater Collection System and GIS data acquisition and Atlas Map development. The PBS&J team and approach provided the City the depth and diversity of resources needed to complete a comprehensive master plan. PBS&J's master plan for Chino Hills addresses the existing and future needs of the City, which covers 46 square miles and has 73,000 residents.



Water supply has been a critical, if not contentious issue in Chino Hills. In the early 1990s, Chino Hills was issued compliance orders requiring adequate water supplies. As a result, a diverse water portfolio was developed including imported water, groundwater, and local desalted water. Part of PBS&J's efforts included re-evaluating the complex supply source mix, in consideration of technical issues (such as water quality and subsidence, as well as cost and institutional issues).

The Chino Hill Master Plan also includes substantial technological upgrades to their GIS system. PBS&J performed conversion of hard copy plans to digital format, as well as water and sewer systems attributing, which link as-built drawings and facility information with online GIS water and sewer system mapping. PBS&J also developed atlas mapping, which are critical tools in the operation and maintenance of the City's infrastructure.



The City's water, recycled and sewer master planning includes state-of-the-art hydraulic modeling—all integrated with geolinked meter account records. PBS&J's hydraulic modeling for Chino Hills maximized actual meter records to produce an accurate hydraulic model. The water records also serve recycled water system planning by assessing existing landscape customers. In addition, wet weather water demand information and return-to-sewer coefficients were used to develop accurate sewer modeling data. Extended period simulation provides City staff with system results that can be calibrated to reservoirs, pumps, valves, flow meters, and other SCADA data.

PBS&J is performing follow-on work related to this master planning effort, including preparation of a programmatic EIR and design of an updated SCADA

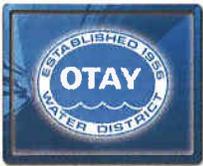
system. The City of Chino Hills is an excellent example of PBS&J's specialized planning experience, and our ability to integrate multiple water, recycled water, and sewer analyses into a comprehensive master plan.

SOUTH COAST WATER DISTRICT INFRASTRUCTURE PLAN

Client: South Coast Water District
Reference: Bob Clark, Project Manager
 South Coast Water District
 949.499.4555

PBS&J is currently working with South Coast Water District to develop comprehensive Domestic Water/ Recycled Water and Wastewater Master Plans. South Coast Water District spans approximately 8.4 square miles of southern coastal California and serves 41,600 people within portions of Dana Point, San Clemente, and Laguna Beach. The District currently relies entirely on imported water from the Metropolitan Water District to supply the 7.4 mgd of potable water and 0.8 mgd of recycled water demands. PBS&J is working closely with the District's staff to develop accurate models of the infrastructure and assets. PBS&J is using InfoWater for the water and recycled water models and InfoSewer for the wastewater model. The District's GIS was used to build the hydraulic models, thus maintaining an exact match between the model and the GIS data. Meter records for the District's 12,164 potable customer connections were then linked to the parcels within the District to accurately





allocate existing demands in the system to verify the District's unit-water demands and to project future demands for undeveloped properties.

Along with flow and pressure recorder field test data and SCADA information, these hydraulic models will be developed and calibrated to accurately identify current and potential system issues, recommend the improvements necessary to maintain reliability, and support future changes within the District. The Master Plans will be used as a reference by the District's staff and consultants for ongoing maintenance, future planning and design of infrastructure.

**OTAY MESA TRUNK SEWER MASTER PLAN/
ALIGNMENT STUDY AND EIR**

Client: City of San Diego
Reference: Alan Navarro, Project Manager
City of San Diego MWW
858.292.6459

PBS&J was retained by Pardee Homes and the City of San Diego, in a public/private partnership, to master plan and design a \$30 to \$125 million major trunk sewer system to serve the Otay Mesa area in the City and County of San Diego immediately north of the US/Mexico border, east of I-805. This sewer infrastructure project consisted of a new 30- to 60-inch diameter pipe trunk sewer approximately 14.7 miles in length. Expedient evaluation of the capacity of the City's existing system was necessary to avoid the imposition of building moratoriums within this rapidly growing industrial area located in the vicinity of an increasingly active international border crossing. As part of this project, PBS&J prepared the master plan, including hydraulic modeling, an exhaustive alignment study, an EIR, detailed design, and performed construction management. PBS&J's role in the Otay Mesa Trunk Sewer project included all aspects of the project from preliminary planning to engineering design to environmental compliance to construction.

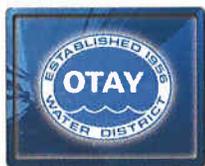
Hydraulic Modeling – Hydraulic modeling utilizing extensive GIS information was used to assess the City's

existing sewer collection system and the capacity of the new trunk sewer. From the City's three independent drainage basin sewer models, PBS&J created a single dynamic model to evaluate the existing system, interim phased improvements and the ultimate system. This information was used to size the various gravity trunk sewer lines, force mains, and pump stations for the development of the various project alternatives. Based on interim and ultimate population projections and the dynamic model analysis, a building moratorium was avoided and phased improvements over the next 30 years and for ultimate build-out were proposed. The study saved the City approximately \$28 million in capital costs deferring improvements for 10 to 20 years or longer, when they are needed.

Master Plan/Alignment Study – The PBS&J alternative analysis implemented for this project required an integrated approach involving land use master planning, alignment analyses, engineering evaluations, and the environmental assessment of each project component and alternative. This information was developed and used as the basis of comparison of more than 400 alignment alternatives through collaborative and rigorous coarse and fine screening processes to select the preferred project.

Environmental Impact Report – An EIR was prepared for the project addressing biology, cultural resources, air quality, construction traffic, hazardous materials, land use, and other issues. Extensive coordination was conducted with several agencies including the City of San Diego, MWW, the U.S. Border Patrol, Caltrans, the U.S. Fish & Wildlife Service, the California Department of Fish and Game, the Army Corps of Engineers, and the Regional Water Quality Control Board.





EMERGENCY WATER STORAGE PROJECT

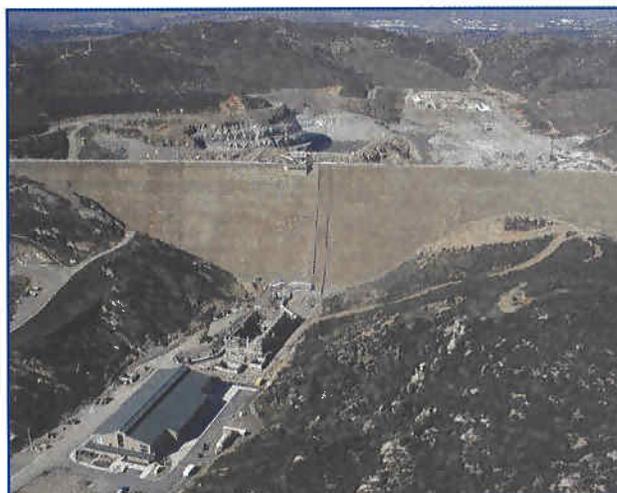
Client: San Diego County Water Authority

Staff of the PBS&J team have played key roles in the planning, permitting, preliminary design, and operations planning for the San Diego County Water Authority's Emergency Storage Project, or ESP. The ESP is designed to protect the economy of the San Diego region by providing 90,000 acre-feet of additional water storage and associated conveyance facilities for use following an earthquake induced outage of the region's imported water supply system. PBS&J's work on the project has been as the major subconsultant to GEI, and has extended over the past eight years.

Project Planning and Permitting Phase – Prior to the conception of the ESP, the San Diego region had tried and failed to obtain regulatory permit approvals for the construction of new emergency water storage facilities. Staff from the PBS&J team were instrumental in shaping a planning and public review process that achieved stakeholder buy-in, and that ultimately secured all needed project approvals. Key success elements included 1) thorough evaluation of all reasonable project configuration alternatives, 2) clear project documentation of public information materials, 3) open public participation, and 4) a structured work plan focused on overcoming known project permitting challenges. The PBS&J team will apply this experience to help the Otay Water District to smoothly coordinate the engineering and environmental planning efforts and to achieve the necessary approvals.

Operations Planning Phase – Over the past five years, PBS&J has assisted with the development of operating plans for integration of the new ESP facilities into the existing regional water conveyance infrastructure. The work has addressed hydraulic control and configuration, delivery forecasting, and related decision support functions. Similar planning will be required for the Otay system to address the integration of the water supply improvements proposed in the District's new IRP. The PBS&J team will apply its facility and operations planning

experience to help the District plan efficiently for the integration of new supply sources into the District system.



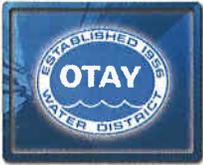
Testament to Sound Planning: The recently completed Olivenhain Dam is the flagship facility of the Emergency Storage Project. Project planning and permitting overcame previous permit failures to obtain public support and secure all needed.

VISTA WATER MASTER PLAN

Client: Vista Irrigation District

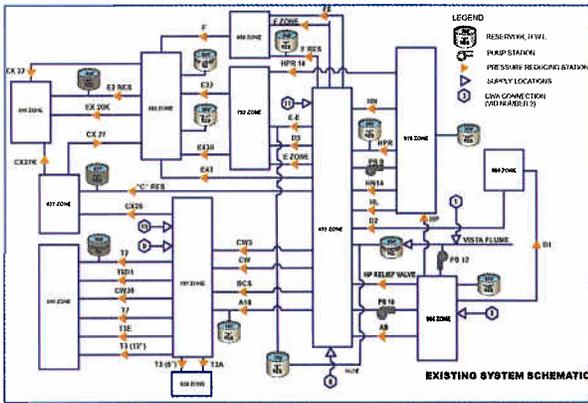
PBS&J was selected by the Vista Irrigation District to develop an update to a 1995 Water Master Plan, which was prepared in-house by District staff. The updated Water Master Plan included an evaluation of existing and future water demands, a revisit of treated water storage needs, the development of a new H₂ONet hydraulic model, and a detailed CIP.

The H₂ONet model was fully integrated with the District's GIS systems, including a unique use of the District's water meter account information database. The District's GIS maintains the location and account number of every water meter, as well as annual averages for each water account. Therefore, each water meter record can be accessed and input into the hydraulic model. This was done by District staff using a GIS technique called "polygon processing" to intersect meter accounts with model node numbers. The result was a three-year average for existing water usage in



the model, which allows for more accurate representation and modeling of the existing water system.

The District's water system consists of numerous pressure zones interconnected with combination pressure reducing and sustaining valves that add complexity to hydraulic modeling since input options are not readily available in any water hydraulics programs to model combination values. PBS&J, utilizing H₂O Net, devised a sophisticated logic scheme to control pressure reducing and sustaining valves in parallel to properly throttle or close on the changing hydraulic conditions over a 24-hour simulation period. This has allowed more accurate representation and proper evaluation of existing system operational issues.



SAN DIEGUITO WATER MASTER PLAN

Client: San Dieguito Water District

PBS&J was retained by the San Dieguito Water District to prepare a comprehensive master plan of the District-wide water distribution and storage facilities. The study included computer modeling of the water distribution system based on current and future population projections, as well as an exhaustive review of the District's water supply and storage needs. Additionally, cost estimates and system mapping were prepared for all recommended facilities.

Through this study, the PBS&J team successfully developed an integrated five-year Capital Improvements Program for the District, which specifically identified a prioritized series of improvements, including major pipelines, several

large storage reservoirs, and pumping facilities, which will substantially improve system reliability.

Additional Relevant Experience

The following summarizes additional experience specific to many of your scope of work tasks:

Master Plans, Modeling & Supply Evaluations

- ❖ Otay Water District Central and North System Water Studies and Modeling (1995-1997)
- ❖ San Diego Beneficial Reuse Recycled Water Master Plan (1998-2003)
- ❖ Escondido Water Master Plan Update (1998-1999)
- ❖ SDCWA Emergency Storage Project (1998-2003)
- ❖ City of San Diego 793 Regional Study (2000-2001)
- ❖ Vista Irrigation District Water Master Plan (2000)
- ❖ San Dieguito Water District Water Master Plan (2000)
- ❖ City of Carlsbad Recycled Water Master Plan (2000)
- ❖ Padre Dam Municipal Water District Integrated Facility Plan (water, recycled water) (2000-2001)
- ❖ Santa Fe Irrigation District Water Master Plan (2002)
- ❖ City of Corona Recycled Water System and Retrofit Planning (2002-2003)
- ❖ City of San Diego Recycled Water Master Plan Update (2003-2004)
- ❖ SDCWA Desalination Conveyance System Planning (subconsultant) (2003)
- ❖ San Elijo Recycled Water Modeling and System Planning (2003)
- ❖ San Geronio Pass Water Agency Alternative Water Supply Study (2003-2004)
- ❖ City of Chino Hills Water, Recycled Water and Sewer Master Plans (2004-Present)
- ❖ City of San Diego Water Reuse Study (2005)
- ❖ City of Chula Vista Sewer Master Plan (2002-2004)
- ❖ City of Riverside Sewer Master Plans (2001-present)
- ❖ City of Encinitas Sewer Master Plan (2002-2003)
- ❖ City of Vista Sewer Master Plan (2002)
- ❖ National City Sewer Master Plan (2002)
- ❖ East Otay Mesa Sewer Master Plan Update (2005)
- ❖ Florida Keys Aqueduct Authority Transmission Master Plan Update (2006-present)





- ❖ South Coast Water District Water, Recycled Water & Sewer Master Plan (2006-present)

On-Call Hydraulic Modeling

- ❖ Padre Dam Municipal Water District
- ❖ San Dieguito Water District
- ❖ City of San Diego Recycled
- ❖ Vista Irrigation District
- ❖ City of Escondido
- ❖ City of Del Mar
- ❖ Santa Fe Irrigation District

Private Development Water and Recycled Water Modeling/Planning

- ❖ Pardee Otay Mesa Projects (California Terraces, Dennerly Ranch, et. al.) (1995-present)
- ❖ Otay Mesa Community Plan Update Technical Infrastructure Study (2007)
- ❖ Eastlake Water, Recycled Water, Sewer Master Plans (2000-2003)
- ❖ Misc. Escondido Development Studies (1995-2006)
- ❖ McMillin Miramar Ranch North (1993-1998)
- ❖ Taylor Woodrow Black Mountain Ranch and Perimeter Properties (1998-2002)
- ❖ Fanita Ranch (1999-2000)
- ❖ Pardee Carmel Valley Pressure Evaluation (1999-2000)
- ❖ Pardee Pacific Highlands Ranch Water, Recycled Water, Sewer Master Plans (1999-present)
- ❖ BMRLLC Black Mountain Ranch Phase II Water & Recycled Water (2000-present)
- ❖ Eastbridge Partners Spring Mountain Ranch Water Master Plan (2001-2002)
- ❖ McMillin Rancho Encantada (2002-2003)
- ❖ Rhodes Subarea IV Water and Recycled Water Master Plans (2002-2003)
- ❖ McMillin Village 7 Conceptual Water & Recycled Water Study and SAMP (2004)
- ❖ McMillin Village 18 (Lonestar Ridge) Conceptual Water & Recycled Water Study (2005)
- ❖ McMillin Village 6 SAMP (2001)
- ❖ McMillin Freeway Commercial SAMP (2002)
- ❖ McMillin Eastern Urban Center Technical Water Study (2006-present)
- ❖ Otay Crossings Commerce Park Conceptual Water & Recycled Water Study (2006-present)

- ❖ McMillin Rolling Hills Ranch Hydropneumatic Pump Station Design (2003)
- ❖ Padre Dam Sky Ranch Water & Sewer Study (2004)
- ❖ Padre Dam Lakeside Downs Water & Sewer Study (2004-present)
- ❖ Pardee Castlerock Water, Recycled Water & Sewer Study (2007)

Atlas Maps and Master Plan GIS Integration

- ❖ City of Chino Hills
- ❖ City of Dana Point
- ❖ City of Riverside
- ❖ City of Del Mar
- ❖ City of San Diego CCTV
- ❖ City of Encinitas
- ❖ Las Vegas Flood Control
- ❖ City of Chula Vista
- ❖ City of La Mesa

Energy Efficiency and System Operation

- ❖ Reservoir Cycling and High Pressure Evaluation in the Hillsdale Water System, Otay Water District
- ❖ Rancho Jamul Pump Station and Reservoir Optimization, Otay Water District
- ❖ Buena Vista Pump Station, Otay Water District
- ❖ Pressure Reducing Station Cavitation Assessment, Padre Dam Municipal Water District
- ❖ H. Warren Buckner Pump Station, Helix Water District
- ❖ Black Mountain Ranch Hydro-generation and Pressure Reducing Facility Assessment, City of San Diego
- ❖ Zone III Pump Station (Control Valve Sizing, Electrical Rate Structure, Alternative Power), City of Newport Beach

Financial Studies

- ❖ County of San Diego
- ❖ City of Oceanside
- ❖ City of Camarillo
- ❖ City of Culver City
- ❖ Padre Dam Municipal Water District
- ❖ City of Chula Vista
- ❖ City of National City
- ❖ City of Santa Monica
- ❖ San Diego Metropolitan Wastewater District

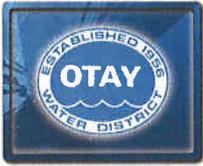
Project Team Qualifications and Experience

Firm Personnel Title	Local Office Size - Total Professionals	Degrees, Affiliations, Licenses	Years Exp. on Water System Projects	Years Exp. Total With Firm/With Others	Similar Projects Past 5 Years	Projects with Otay Past 5 Years	% Change Orders
PBS&J James Strayer, PE Principal-In-Charge	107/78	B.S., Civil Engineering Professional Certified Engineering Management Professional Engineer, CA 56943, NV 16100 American Water Works Association WaterReuse Association, San Diego Chapter President Board Member, Boys & Girls Club	13	13/13/0	San Elito, JPA Recycled Water Master Plan (Principal on Engineering Evaluation), 2005. Mike Thornton, 760.753.6203 ext. 72 City of Chino Hills Comprehensive Master Plan and Program EIR (Principal and Recycled Task Leader), 2006, Garry Cohoe, 909.781.1869 City of San Diego Water Reuse Study	Waste Discharge Permit Revision for Ralph W. Chapman WRF, 2006-2007 Principal-In-Charge	N/A
PBS&J Mark Elliott, PE WRMP Project Manager	107/78	B.S., Civil Engineering Professional Certified Engineering Management Professional Engineer, CA 42064 American Society of Civil Engineers American Water Works Association Building Industry Association	23	23/16/7	South Coast Water District Infrastructure Master Plan, 2006-2007, Bob Clark, 949.499.4555 Seven U.S. Air Force Bases - Water System Master Plans, 2005-2006 Florida Keys Aqueduct Authority Master Plan, 2006-2007 City of Chula Vista Wastewater and Drainage Master Plan, 2005 County of San Diego - East Otay Mesa Master Plan, 2005 Otay Water District - Otay Ranch Volume I Water Master Plan City of San Diego Water Master Plans for Black Mountain Ranch, Pacific Highlands Ranch, and Otay Mesa, 2002-2005	Extensive Planning Projects with Otay primarily for developers providing submittals to Otay Water District: ▶ Village 6 SAMP ▶ Freeway Commercial SAMP ▶ Village 7 SAMP ▶ Estilake III SAMP	N/A
PBS&J Kim Howlett PEIR Project Manager	107/78	B.A., Business & Planning Certified EIR Preparer, County of San Diego American Planning Association Association of Environmental Professionals	30	30/5/25	UCSD As-Needed Environmental Services, Catherine Presmyk, 858.534.3860 City of San Diego Otay Mesa Trunk Sewer Project, Allan Navarro, 858.292.6459 Lakeland Village Water Distribution System Improvement Project La Mesa Sewer Replacement/Rehab Project for the Inflow/Infiltration Reduction Program	1485-1 Pump Station Replacement Project (MND)	N/A
PBS&J Gary Etkemann WRMP Technical Review	107/78	B.S., Water Resources Management American Water Resources Association American Water Works Association Association of Groundwater Agencies California Groundwater Association Water Environment Federation WaterReuse Association of California	35	35/7/28	City of Chino Hills Comprehensive Master Plan and Program EIR, 2006, Garry Cohoe, 909.781.1869 South Coast Water District Infrastructure Master Plan, 2006-2007, Bob Clark, 949.499.4555 City of Corona Wastewater/Drainage Facilities Evaluation and Master Plans and Water/Sewer Financial Plan	None	N/A
PBS&J John Moynier PEIR Technical Review	107/78	B.A., Conservation and Analysis of Ecosystems Authorized by California Urban Water Conservation Council for Implementation of Conservation Best Management Plans and Conservation Plans Certificate in Land Use and Environmental Planning, University of California, Davis Certificate in Business Administration, University of California, Davis Certificate of Completion, Management Action Program Association of Environmental Planners Association of California Water Agencies, Groundwater and Water Quality Committees California Association of Public Information Officials American Association of Avalanche Professionals California Association of Sanitation Agencies Mountain Counties Water Resources Association California Stormwater Quality Association California Water Environment Association Groundwater Resources Association American Fisheries Society Association of California Water Agencies American Water Works Association Water Education Foundation	13	13/4/9	Program Environmental Impact Report for Long Term Facilities Plan, Orange County Water District Program Environmental Impact Report for Integrated Regional Water Management Plan, San Timoteo Watershed Management Authority Recycled Water Project Environmental Impact Report/Environmental Assessment, Mammoth Community Water District	None	N/A
PBS&J Jennifer Bileck, PE, CFM Hydraulic Modeling	107/78	B.S., Environmental Engineering M.E., Environmental Engineering Professional Certified Engineering Management Professional Engineer, CA 69606 American Society of Civil Engineers Younger Member Forum Certified Floodplain Manager	8	8/7/1	South Coast Water District Infrastructure Master Plan, 2006-2007, Bob Clark, 949.499.4555 City of Chino Hills Comprehensive Master Plan and Program EIR, 2006, Garry Cohoe, 909.781.1869 Otay Mesa Community Plan Update Infrastructure Analysis Otay Water District Developer Studies (Water & Recycled Water Planning) Florida Keys Aqueduct Authority Master Plan, 2006-2007 City of San Diego Water Master Plans for Black Mountain Ranch, Pacific Highlands Ranch, and Otay Mesa, 2002-2005 Padre Dam Municipal Water District As-Needed Modeling (InfoWater)	Extensive Planning Projects with Otay primarily for developers providing submittals to Otay Water District: ▶ Eastern Urban Center ▶ Freeway Commercial SAMP ▶ Village 7 SAMP ▶ Otay Crossings Commerce Park ▶ Otay Mesa Community Plan Update	N/A
PBS&J Jennifer Duffy, PE Master Plan Report and Recycled Water	107/78	B.S., Civil Engineering Professional Certified Engineering Management Professional Engineer, CA 40848 American Society of Civil Engineers WaterReuse Association	23	23/10/15	City of San Diego Beneficial Reuse Studies - Recycled Water Master Planning, 2001-2003 City of SD Water Reuse Study, 2005, included independent Recycled Water Master Plan Report Otay Trunk Sewer Alignment Study, 2003	Project Manager for Waste Discharge Permit Revision for Ralph W. Chapman WRF in 2006-2007. Completed on schedule and under budget.	N/A
PBS&J Doug Gillingham, PE, BCEE IRP Integration	107/78	B.S., Civil Engineering Professional Engineer, CA 39667 Board Certified Environmental Engineer American Society of Civil Engineers American Water Resources Association American Water Works Association North American Lake Management Society	25	25/5/20	Emergency Storage Project Operations Planning Seawater Desalination Conveyance System Planning and Design San Diego County Water Authority Table 1 Group 1 Planning Projects	None	N/A



Project Team Qualifications and Experience

Firm Personnel Title	Local Office Size - Total/ Professionals	Degrees, Affiliations, Licenses	Years Exp. on Water System Projects	Years Exp. Total/ With Firm/ With Others	Similar Projects Past 5 Years	Projects with Olay Past 5 Years	% Change Orders
PBS&J Karyn Keese CIP Project List and Cost Evaluations	107/78	B.S., Business Management and Accounting Government Finance Officers Association American Public Works Association Association of Metropolitan Sewerage Agencies California Society of Municipal Finance Officers	25	25/6/20	City of Chula Vista Long-Range Funding Plan and Capital Fees Update Water Rate & Reserve Study, Sweetwater Authority Water Supply Cost Benefit Analysis, Olivenhain Municipal Water District Water User Rate Study and Long Range Plan, La Habra Heights CWD Eastern Municipal Water District Capacity Fee Update	None	N/A
PBS&J Diane Catalano Program EIR	107/78	B.A., Environmental Studies President, Association of Environmental Professionals, San Diego Chapter	7	7/4/3	UCSD As-Needed Environmental Services City of San Diego Olay Mesa Trunk Sewer Project Pala Pipeline Project	None	N/A
PBS&J Michael Gonzales Program EIR	107/78	B.A., Biology Association of Environmental Professionals California Native Plant Society	20	20/3/17	City of San Diego Water Dept. CIP Projects included North City Water Reclamation System Program EIR and Miramar Water Treatment Plant Upgrade and Expansion Program EIR) UC Irvine LRDP EIR, Richard Demerjian, 949.824.8317, \$225,000	None	N/A
PBS&J Brad Scott GIS/Land Use Database	107/78	M.A., Urban & Regional Planning, GIS B.S., Community & Regional Planning, Environmental Studies ESRI Southeast Regional Users Group Urban and Regional Information Systems Association	11	11/8/3	City of La Mesa Map Book Development California Department of Water Resources, Statewide Levee Inventory and Application Development City of National City Sewer Rate Study Avrida Corporation, Environmental Permit Management System	None	N/A
PBS&J Melisa Caric GIS/Land Use Database	107/78	B.A., Geography Association of State Floodplain Managers ESRI San Diego User's Group Urban and Regional Information Systems Association, Southern California Chapter Board Member	5	5/5/0	City of Chino Hills Sewer and Water Master Plan City of La Mesa Map Book Development Corona Recycled Water Retrofit Chula Vista Master Plan Olay Mesa Trunk Sewer Alignment Study	None	N/A
Earth Tech Tom Degen, PE Water System Calibration	61/52	B.S., Civil Engineering Registered Professional Engineer, WI E-25514	21	24/1/77	South Coast Water District Infrastructure Master Plan, 2006-2007 U.S. Air Force Base Drinking Water Hydraulic Models	None	N/A
PBS&J Randy Rodriguez Land Use Planning	107/78	M.A., Urban Planning B.A., Environmental Studies; B.A., Geography Association of Environmental Professionals Member	9	10/1/9	City of San Diego General Plan Update: EIR, NOP and Scoping City of San Diego General Plan Update: Recreation and Conservation Elements	None	N/A
PBS&J John Spranza Biologist	107/78	M.S., Zoology/Aquatic Ecology; B.S., Aquatic Biology Ph.D. (partially completed), Aquatic Ecology/Fisheries Association of Environmental Professionals Board Member; Los Angeles Chapter American Fisheries Society, Ecological Society of America American Society of Limnology and Oceanography North American Benthological Society; Los Angeles College Faculty Guild	9	9/6/3	Hansen Dam Runoff Remediation and Wetland Restoration Plan Santa Ana River Fisheries and Riparian Habitat Monitoring Plan Santa Ana River Integrated Watershed Management Plan	None	N/A
PBS&J Ronald Walker Biologist	107/78	B.S., Environmental Sciences USFWS Permit to Conduct Vernal Pool Crustacean Surveys Technical Advisor, Sacramento Tree Foundation; Raptor Research Foundation American Ornithologists' Union; California Mining Association Technical Lead, Fish and Wildlife Subcommittee	17	20/1/5/5	Big Bear Municipal Water District Aquatic Monitoring Program UC Merced University Community Planning Area Wet Season Vernal Pool Crustacean Studies Marble Valley EIR, California Red-legged Frog Surveys	None	N/A
PBS&J Geoff Hornek Noise Specialist	107/78	M.S., Engineering/Applied Science; B.A., Physics American Physical Society Air & Waste Management Association	2	26/5/20	Linda County Water District Waste Water Treatment Plant Master Plan EIR Turlock Irrigation District Regional Surface Water Supply Project EIR	None	N/A
SRA Valorie Thompson, Ph.D. Air Quality Specialist	1/1	Ph.D./M.S., Chemical Engineering; B.S., Chemistry Young Professional Award, Woodward-Clyde Consultants, 1991 Air and Waste Management Association American Institute of Chemical Engineers WBEDBE Certification	15	16/10/6	Camp Pendleton Tertiary Treatment Plant Air Quality Analysis Los Angeles Department of Water and Power Air Quality Impact Assessment San Diego County Water Authority Emergency Water Storage Project	None	N/A
LOS Engineering Justin Rasas, PE, TE, PTOE Traffic & Circulation	2/2	M.S./B.S., Civil Engineering Registered Professional Engineer, Traffic Engineer, Traffic Operations Engineer	1	10/2/8	City of National City Traffic Data Collection City of San Diego Annual Traffic Data Collection	1485-1 Pump Station Replacement Project MND	N/A
ASM Affiliates Susan Hector, Ph.D. Archaeologist	23/18	Ph.D./M.A./B.A., Anthropology Register of Professional Archaeologists	27	30/28/2	San Vicente Emergency Storage Project Cultural Resources Survey San Dieguito River Valley Inventory of Archaeological Resources	None	N/A
ASM Affiliates Jerry Schaefer, Ph.D. Historian	23/18	Ph.D./M.A./B.A., Anthropology Register of Professional Archaeologists 2000/40-hour HAZWOPER Certification	27	30/28/2	Gaslamp Historic Trolley Extension Old Coachella Canal Evaluation Historic Sites Archaeology Background Study for the Clean Water Program for Greater San Diego	None	N/A



Method to Accomplish the Work

In this section, we have highlighted key project steps that will result in a “first class” master plan for the Otay Water District. PBS&J’s approach for this project is based on our many years of working within the District and listening to your needs (including our April 19, 2007 workshop with your staff). Our method to accomplish this work begins with a strong foundation of professional and local knowledge, an excellent working relationship with your staff, and a thorough understanding of Otay Water District’s needs, goals, and objectives. We will work with District staff to ensure that the scope of work will not only meet your priorities but exceed your expectations.

PROJECT UNDERSTANDING

This project is to develop an updated WRMP and PEIR based on the outstanding work completed by Otay Water District senior engineering staff in 2002. This update will assure that the water system knowledge and expertise of key senior leadership at the District is transferred to the next generation of District staff. This will enable the future management, engineering and operation teams to accomplish the District’s mission: *“To provide safe, reliable water, recycled water and wastewater services to our community in an innovative, cost efficient, water-side and environmentally responsible manner.”*

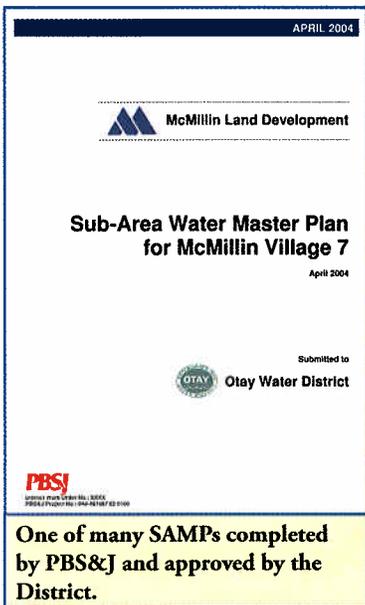
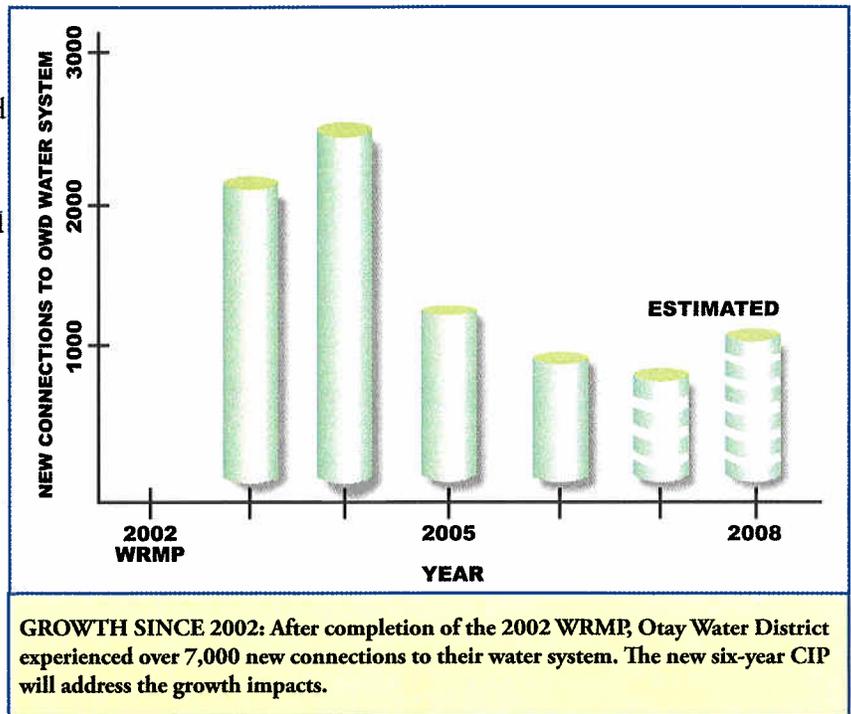


PROJECT GOAL: Polish up the old Master Plan while providing new tools and functionality to allow staff to be more efficient in the future.



This master planning effort has greater-than-normal significance in that it will be the first plan in nearly a decade that the District has outsourced to a consultant team with the responsibility for providing a comprehensive update, including accurate hydraulic models that are fully integrated with the District's GIS. Technologies are constantly changing. The District has recognized the value of embracing technology to develop an updated WRMP that incorporates the correct updated water system, links its SCADA data to the hydraulic model, and plans for future GIS integration.

The District has faced unprecedented growth throughout its service area compared to other water agencies in San Diego County and in the state of California. The graph to the right illustrates the new water service connections since completion of the 2002 WRMP; a total of nearly 7,000 new connections resulting in an additional maximum day demand of nearly 7 million gallons per day. Understanding this type of growth potential within the District's water service area is crucial to developing a well-crafted capital improvement plan to meet the District's water supply and distribution needs over the next six years (Phase I CIP).



Fortunately, the District has implemented a proactive planning process through its Planning and Development Services departments, assuring that the District can respond and manage the growth successfully within its service area. Through land development tentative map requirements for Subarea Water and Recycled Master Plans (SAMPs), the District has truly laid the groundwork for responsible distribution system planning. And its track record speaks for itself, with the many hundreds of miles of water and recycled mains constructed in the past five years.

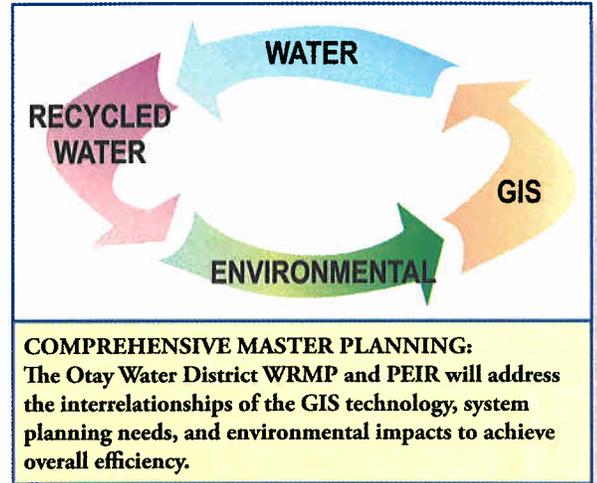
PBS&J understands the importance of these planning studies and the need to incorporate them into the updated water models to assure the most accurate planning tools are used for development of the new capital improvement projects. The PBS&J team has completed many of these SAMPs and, because of this knowledge, can efficiently incorporate these studies into the hydraulic models and the 2009 WRMP.



PROJECT APPROACH

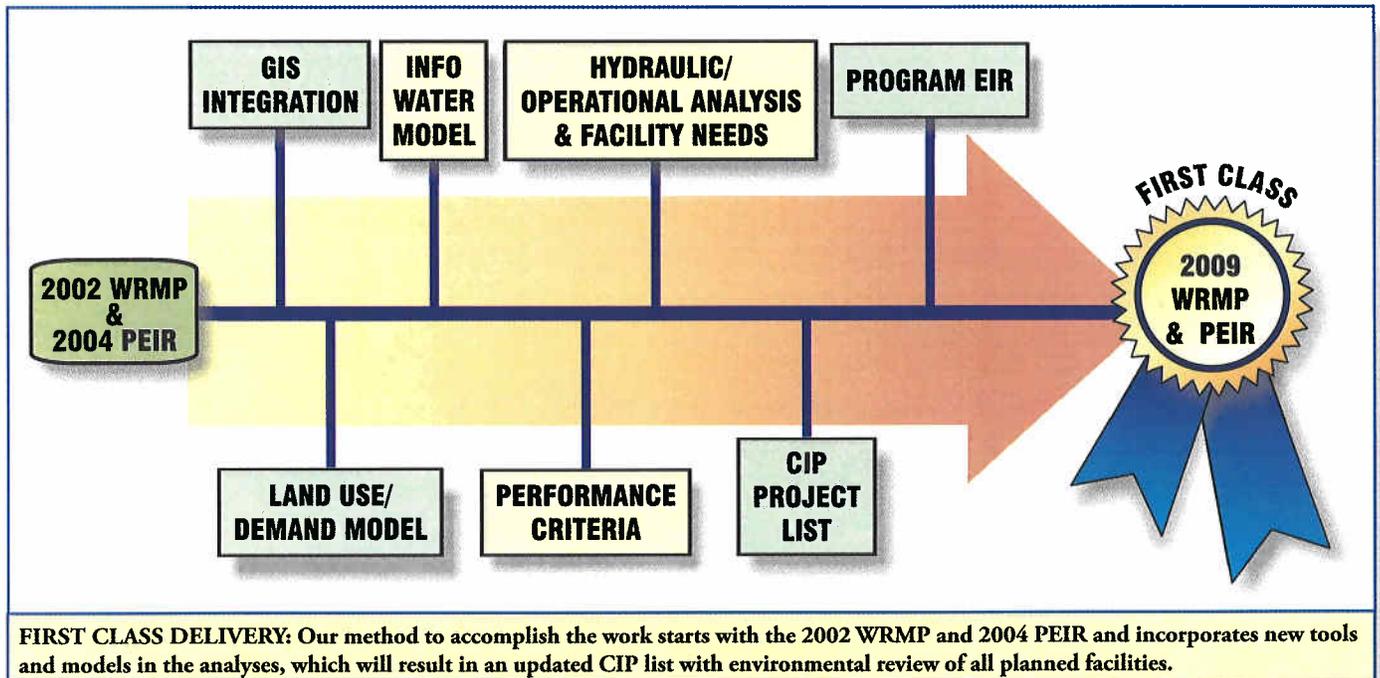
PBS&J will provide the technical planning, GIS, and modeling expertise and familiarity to assure an accurate WRMP update with proper CIP prioritization that you can take with confidence to your Board and ultimately your rate payers.

Our approach recognizes a fully integrated planning process that focuses on the interrelationship and interdependence between the GIS technology side, water and recycled water system planning, and environmental review. The District's stated goal is to develop new 2009 WRMP and PEIR documents under a single planning effort. PBS&J takes this a step further, providing these services with one integrated project team under one roof, with new GIS tools and hydraulic model. The result for the District is an efficient, coordinated effort and superior deliverables.



Our work flow starts with the 2002 WRMP and 2004 PEIR and does not re-invent the wheel, but rather builds upon these documents. We will integrate new technologies and update the District's current GIS databases to develop a new CIP Project List, and produce a "First Class" Otay Water District Water Resources Master Plan.

The following section describes in detail our method to accomplish the work and highlights how our proven approach benefits the District in a number of key ways. The general process is illustrated in the flow chart below.





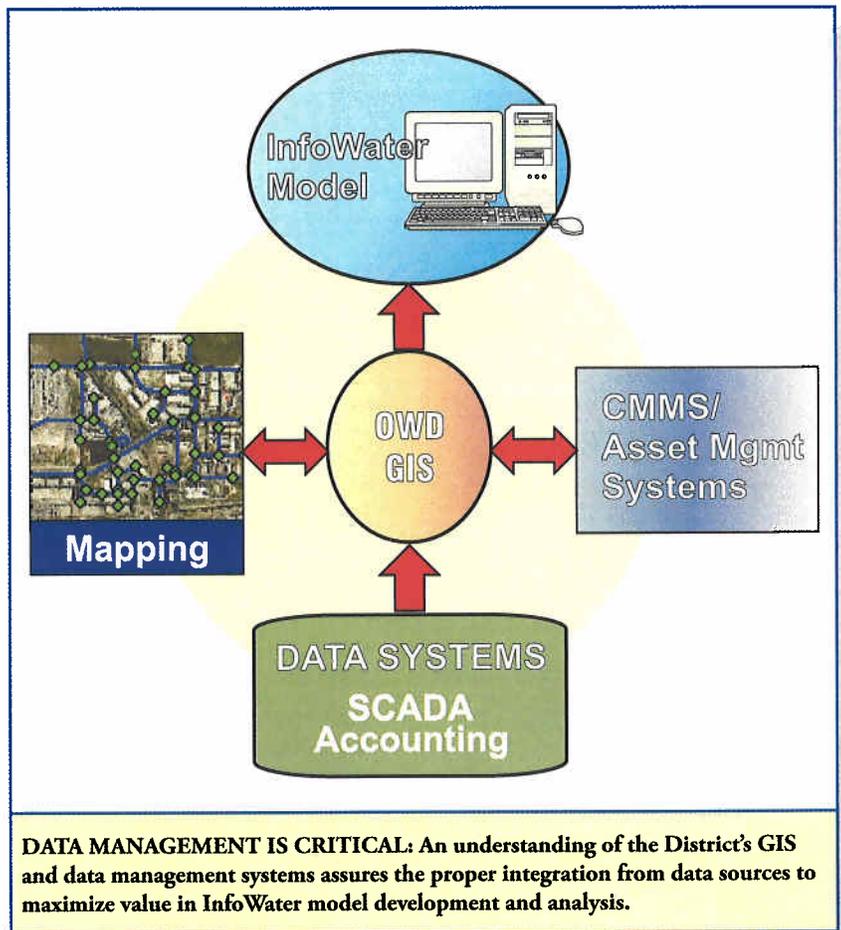
The process starts on the technology side with a new GIS land use database and hydraulic models, and shifts quickly into a hydraulic analysis phase based on updated performance criteria. From here the updated six-year and ultimate CIP project list is developed and is subsequently followed by environmental review. The end-piece of the work plan is a first class 2009 WRMP and PEIR with new hydraulic modeling tools and GIS-based land use tools to help the staff continue to cost-effectively manage the District's water and recycled water systems and to implement its six-year capital program.

Our GIS-based approach will provide the District with in-house, fully integrated expertise in linking future land use and SCADA data to the InfoWater hydraulic model. District staff will then have effective tools to model future land use changes and infrastructure modifications and more accurately evaluate their impacts on the water and recycled water systems.

The District has developed a state-of-the-art GIS database that can support many of its daily engineering and operational needs, such as the production of water distribution system mapping, online retrieval of as-built drawings to support designs and field investigations, and general land use and water information. The staff continues to maintain and update the GIS, as necessary, adding the many new miles of water mains constructed each year to keep the database current.

Accordingly, we believe the GIS will serve as the key "starting point" for PBS&J to implement the new hydraulic water model (InfoWater), link to the District's water meter record data and land use database, and integrate with the District's SCADA system. We also intend to employ a powerful analytical tool known as "InfoNet," which will be a cost-effective, customized approach to identify any remaining information data gaps in your utility system.

PBS&J is one of the leading firms in the nation in GIS and data management and is noted for innovative, practical applications of GIS and modeling tools for our clients. The District will benefit from our GIS and modeling experience through our ability to assist staff in any fine-tuning of their GIS system, linking to modeling and management tools, and overall assistance in developing a full GIS Integration Plan.

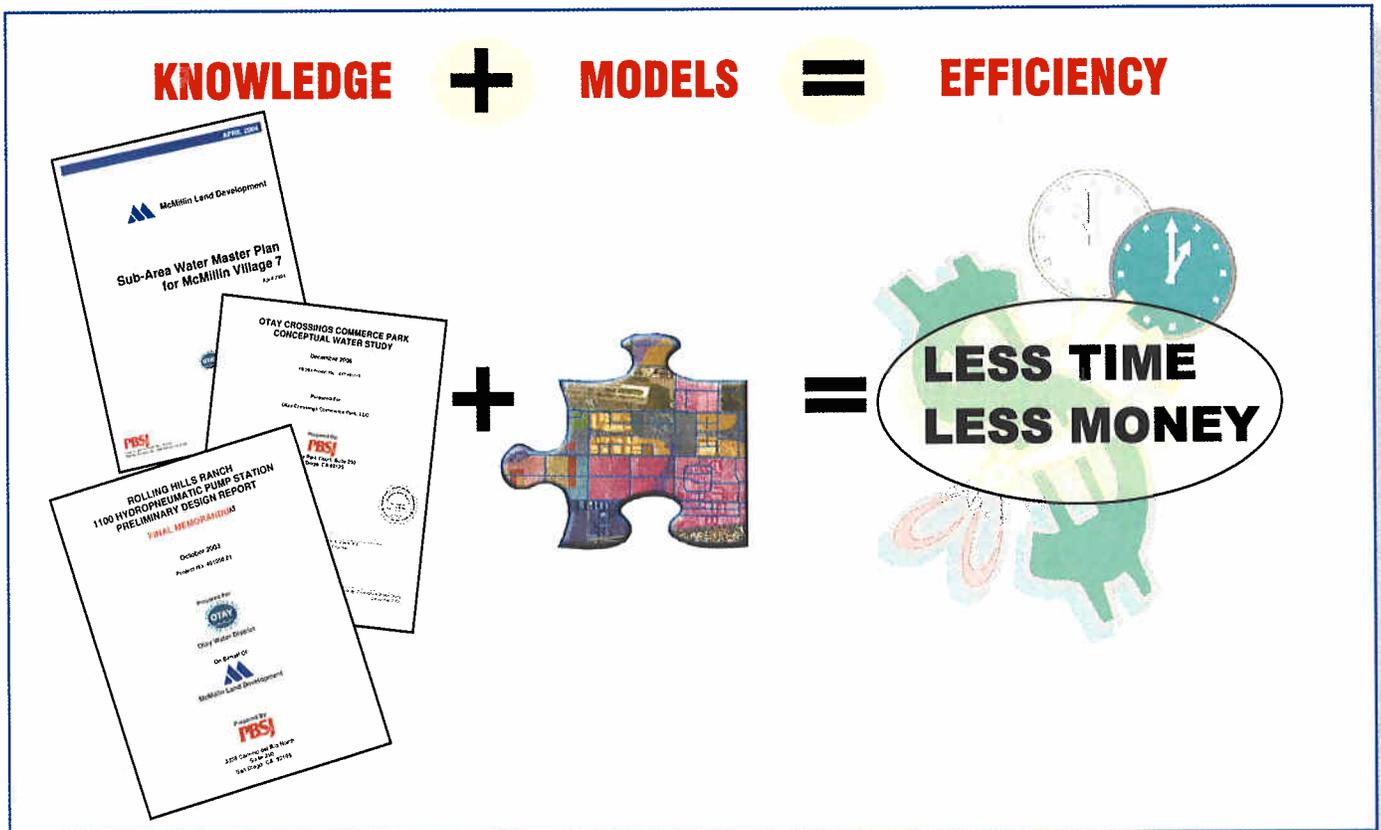




Our on-the-ground knowledge of evolving service areas in the Otay Water District, such as Otay Mesa, will provide first-hand consideration of major land use changes beyond the existing general plans. We can assure you a head start in understanding how the Otay Mesa Community Plan Update and other proposed zoning changes will affect your CIP Project List.

The City of San Diego is currently in the environmental review process of a major land plan update to the Otay Mesa Community Plan, where a large portion of the area is served by the Otay Water District. PBS&J has served as the technical water, recycled water, and wastewater consultant for the past several years in the evaluation of each of the three proposed land use alternatives.

The need for more housing units in the City of San Diego coupled with a major shortage of developable land has resulted in general plan alternatives to convert industrial lands to high-density residential developments, such as multi-story condominiums and apartments. Should any one of the residential alternatives be implemented, the Otay Mesa area will see a 20 to 30 percent increase in water demand when compared to the 2002 WRMP. This land plan change will also result in a need to re-evaluate the potential recycled market and update the planned recycled water system to possibly include service to the City of San Diego.



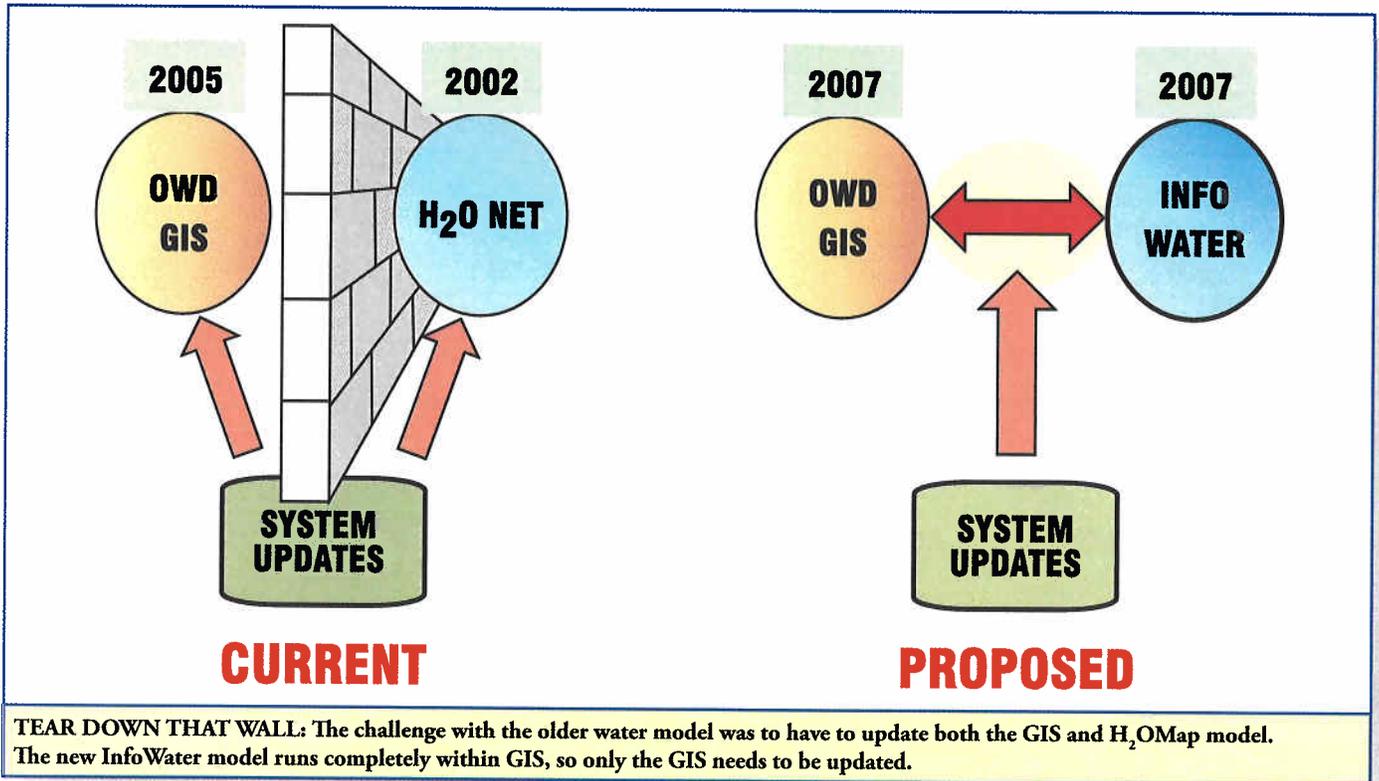
WE BRING ON-THE-GROUND KNOWLEDGE OF YOUR SERVICE AREA: Our knowledge of Otay SAMPs and the Otay Mesa Community Plan Update provide a head start in getting the WRMP and Program EIR done on schedule and within budget.



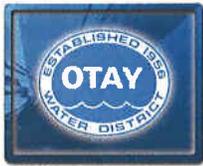
Our hydraulic model approach combines the up-to-date GIS database and the most accurate water and recycled water models to leverage the power of the new InfoWater model software and accurately develop an updated water model of the existing Otay Water District water system.

The 2002 WRMP developed hydraulic water models using the then-current state-of-the-art model software H₂OMap. The 2002 Water Models include a fairly detailed network of 8-inch and larger pipelines and pump station and reservoir facility data. Water demands for these models were developed via the land use duty methodology. It is important to note that the GIS data and the previous water models were developed separately, thereby requiring each database/file to be updated independently with every new expansion of the District's water system.

Based on our recent dialogue with District staff, the District's GIS system has been regularly updated to keep up with the immense growth that has occurred. On the other hand, the "existing" water models have not been regularly updated and still reflect water system configurations from year 2002. PBS&J approaches the modeling effort with a goal of providing the most updated hydraulic model, using the most up-to-date GIS land use database, while efficiently maximizing the value from the current District water models.

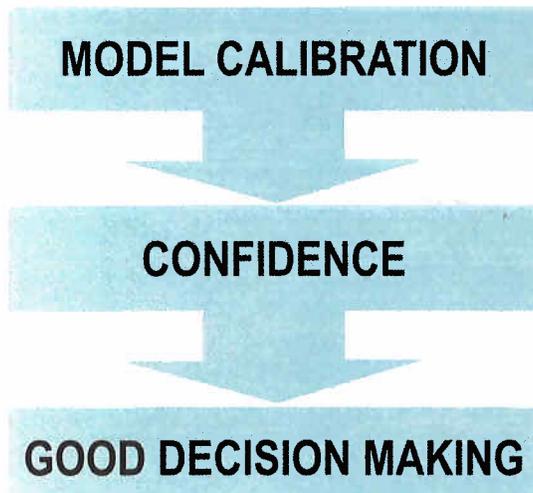


Advancements in technology have allowed large districts to integrate their GIS databases with hydraulic models. These advancements can significantly reduce the amount of time needed to build models, while maintaining a 1-to-1 relationship with the GIS. This is also key for databases such as SCADA and CMMS. Powerful solving engines provide accurate results and "peace of mind" for even large districts such as the Otay Water District. These new water and



recycled water models will allow the District to operate and maintain its infrastructure, plan for outages and emergencies, and coordinate the implementation of your CIP Projects.

PBS&J has extensive experience modeling large and complex systems using MWH Soft products, particularly InfoWater. Our knowledge of the District’s water and recycled water systems, issues, criteria, and future developments, combined with our expertise in water system modeling, really does make PBS&J your “consultant of choice” for this WRMP.



We take model calibration very seriously. This is a critical but challenging task that seldom receives the attention it deserves. The accuracy and reliability of the District’s water models are paramount to optimizing the CIP Project List, making operational system decisions, and providing flow and pressure data to its customers for private fire system design.

We are shocked by the large number of municipalities in the United States that use hydraulic models that have not been properly calibrated. Those models would not pass a true test of their ability to accurately simulate field conditions. The old adage “Garbage In – Garbage Out” directly applies to hydraulic modeling. Over many years of experience, PBS&J has developed procedures to ensure proper calibration.

OUR MODEL CALIBRATION HELPS YOU MAKE GOOD DECISIONS: We believe that a properly calibrated model provides the confidence needed to make significant capital planning decisions and provides a reliable planning tool to make good operational decisions and respond to regulatory changes.

We propose a calibration plan that focuses on “macro” level calibration procedures, using the District’s SCADA data in conjunction with special continuous pressure monitoring equipment. The District’s SCADA data will be used to collect key “boundary condition” information, such as reservoir levels, pump station operations, field pressures, water quality and flow control facility status.

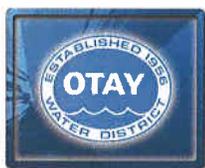
The special pressure monitoring equipment, known as Telogs, are set up at fire hydrants throughout portions of the water system to obtain additional pressure data. These are digital recorders that record water pressure every 15 to 20 seconds over a period of one week. Due to the current regulatory constraints associated with discharging flow from hydrants in the water system, flow testing is not currently included in our calibration plan. In its place, the Telog pressure monitoring testing, known as “micro” level calibration, can help in improving model calibration.

Our Otay Water District water system “calibration plan” therefore will focus on:

- ❖ Establishing quantifiable project calibration goals;
- ❖ Designing a structured field testing program, in conjunction with the District’s SCADA data; and
- ❖ Using digital pressure logging devices.

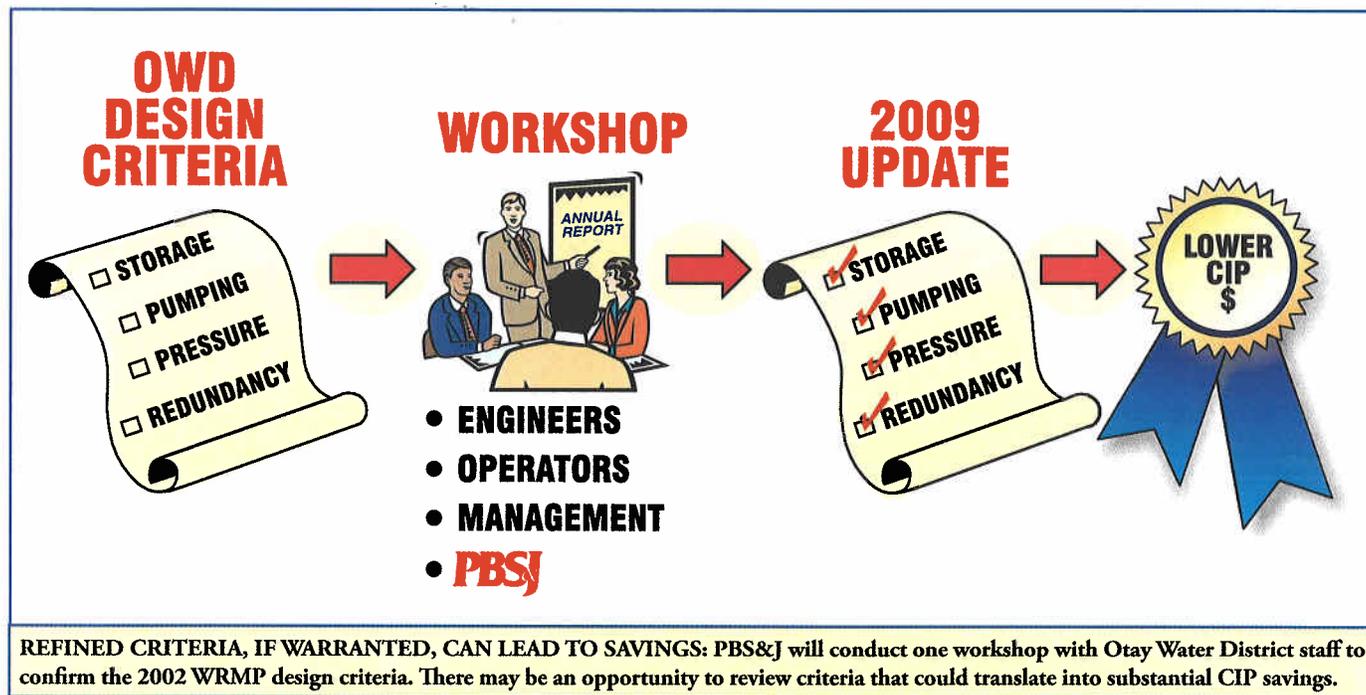


INTELLIGENT CALIBRATION: Pressure monitoring equipment can be set up at fire hydrants to continuously and digitally record pressures.



The design criteria developed by the District as part of the 2002 WRMP will be carefully reviewed with engineering and operations staff, based on the past five years of system performance to determine if any changes are warranted. Simple modifications to design criteria, based on operational system changes, can save millions in CIP costs.

The water system design criteria developed in the 2002 WRMP has served the District well in expanding its water system and sizing and constructing new major water facilities. We do not anticipate major changes to the design criteria, although we recommend including one workshop with engineering, operations, and senior management to review the criteria and how it has served the District the past five years. We might discover an area that staff considers worthy of refining based on operations experience, such as a small reduction in storage criteria. Also, there may be findings and recommendations from the Integrated Resource Plan that may warrant re-evaluation of supply and reliability criteria. Our approach is to facilitate the workshop to review all criteria and discuss opportunities to consider modifications that may result in cost savings to the District.



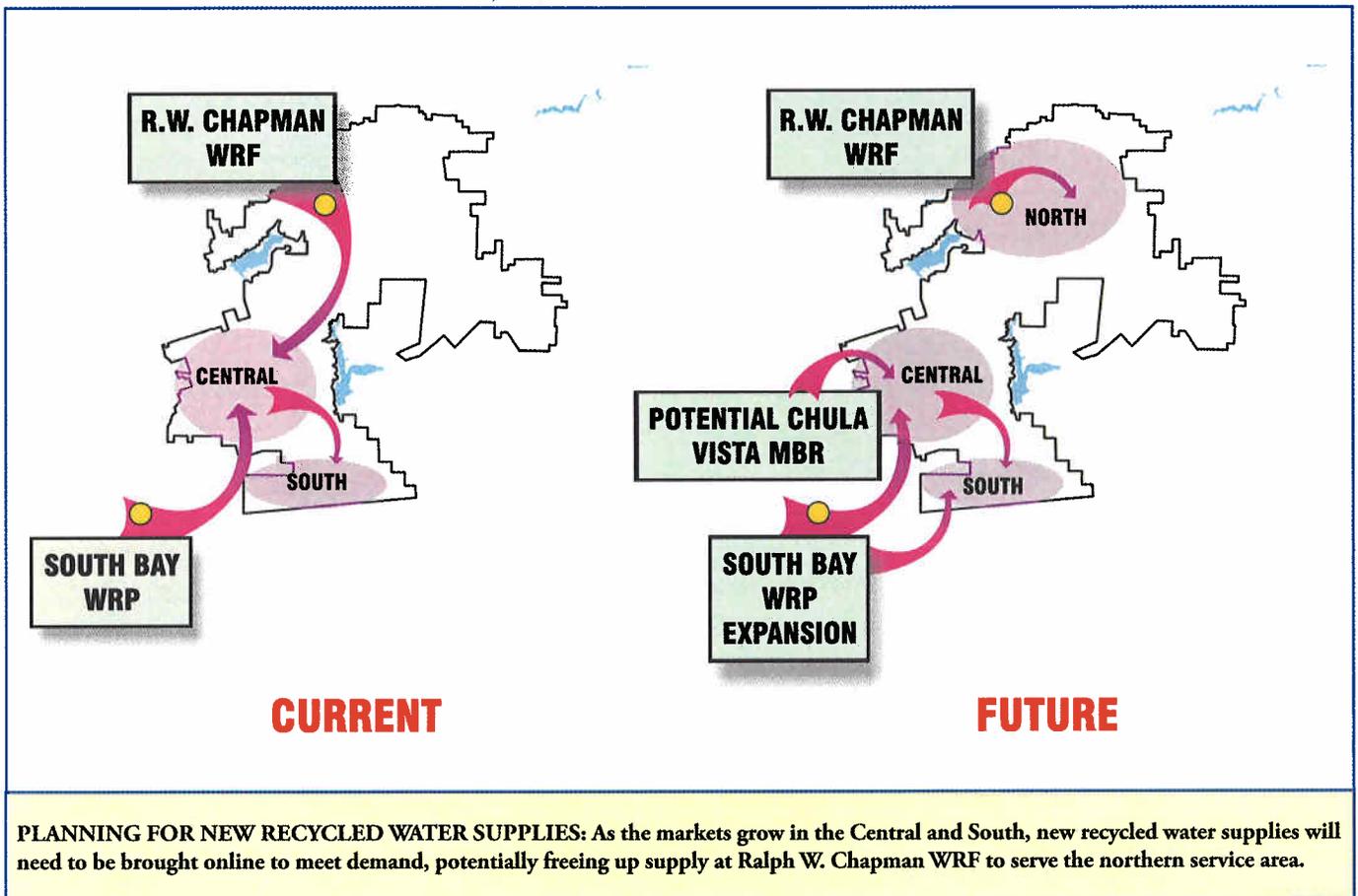
On May 9, 2007, the District received approval from the San Diego Regional Water Quality Control Board to increase recycled water supply throughout its Central and Southern Districts. As one of the premier recycled purveyors in Southern California, the Otay Water District desires to expand its recycled water program to the Northern District as well.

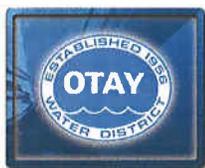
The challenge is to find viable markets for additional deliveries of recycled water where the cost of expansion of the delivery system would not be prohibitive, and where the environmental issues are not insurmountable. PBS&J has conducted numerous cost/benefit evaluations for the optimization of recycled water use in other agencies, and is noted for identifying innovative ways to expand the use of this valuable, locally produced resource.



The District has already performed a recycled water market assessment to determine the existing and potential end users for the system. Our approach is to review the District’s market assessment, provide updates as necessary based on proposed developments and land use plans, make recommendations, and re-evaluate the District’s recycled water model.

In addition, the recycled water system has changed significantly since the 2002 WRMP. The previous study included supply to the Otay Mesa system through a connection in Otay Mesa Road to the South Bay Water Reclamation Facility (WRF). Revised planning for this service area now transfers the water through the District’s entire Central Service Area before it reaches the Otay Mesa System. As part of the Otay Mesa Community Plan Update, PBS&J has already analyzed the District’s current recycled water model using InfoWater to determine potential impacts to the system and prepared a Technical Infrastructure Study. PBS&J is very qualified to quickly and efficiently update this model for the 2009 WRMP, and identify recycled water infrastructure improvements needed to keep Otay Water District in the forefront of recycled water planning.





PBS&J recognizes that in order to keep the District “out-of-hot-water” with resource agencies and concerned stakeholders, a comprehensive update to the 2004 Program EIR is critical.

The biggest challenge today in obtaining your Board approval may not reside in the engineering elements of the water master plan. Instead, this challenge may lie in the environmental review of the proposed capital improvements projects in the PEIR. Challenges to this document, or subsequent project-specific environmental documentation, could delay the implementation of key capacity improvement projects.

Our approach starts with our local familiarity with the District’s service area and overall environmental issues throughout San Diego County. Our project manager for the PEIR, Mr. Kim Howlett, managed the successful completion of Otay Water District’s first Program EIR (known as a Master EIR), which was finalized in 1996.

The second part of our approach involves the maximum utilization of the most recent Otay Water District Water Resources Master Plan PEIR, which was finalized in 2004. With this in mind, PBS&J will review and compare the list of CIP projects identified in the 2004 PEIR with those proposed in the updated WRMP and make the appropriate changes. We will also review the existing condition information, regulatory framework, impact analysis and mitigation measures for each of the environmental issues addressed in the 2004 PEIR and update this information as well. The environmental issues include:

- ❖ Aesthetics
- ❖ Agricultural Resources
- ❖ Air Quality
- ❖ Biological Resources
- ❖ Cultural Resources
- ❖ Geology, Soils and Paleontology
- ❖ Hazards and Hazardous Materials
- ❖ Hydrology/Water Quality
- ❖ Land Use/Permitting
- ❖ Noise
- ❖ Population/Housing
- ❖ Public Services
- ❖ Recreation
- ❖ Transportation/Traffic
- ❖ Utilities/Service Systems

The overall approach to the PEIR will also be to maximize its usefulness for the development of future individual capital improvement projects. To that end, and with the District’s approval, the EIR format PBS&J recommends for the Water Resources Master Plan PEIR is the same as the one we used for the award-winning 2004 Long-Range Development Plan Final EIR for the University of California, San Diego (UCSD), because it provides a very thorough and clear organization for the presentation of the environmental information. This format was not only endorsed by the UCSD planning staff, but was also praised by the Office of the President legal counsel and environmental planning staff. Moreover, this format was specifically cited by one of the Association of Environmental Professionals (AEP) jurors when they awarded PBS&J and UCSD the Outstanding Environmental Analysis Document in 2004 and the statewide award in 2006.

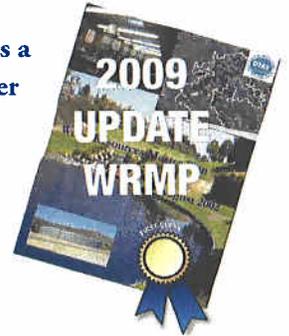
About the PBS&J EIR, one juror stated that the “summaries [found] in the graphic boxes dispel the mystery, eliminate the suspense, and illuminate the conclusions about each issue. Original, unique, and totally cool!”

Furthermore, PBS&J will structure the impact analysis in the PEIR to cover a variety of situations that may arise during future environmental review of CIP development projects. We will identify potentially significant impacts associated with various CIP projects, and develop a sequential approach to mitigation measures where we identify and address a wide range of impact situations that may occur. This approach gives you a document that meets your needs well into the future.



Finally, PBS&J anticipates the inclusion of a global warming discussion in the PEIR given the recent passage of AB 32, *The California Climate Solutions Act of 2006*. Although a discussion of global warming impacts is not currently required by the California Environmental Quality Act (CEQA) statutes or guidelines, it is the view of the state legislature, with the passage of AB 32, that global warming poses significant adverse effects to the environment of the state of California and the entire world. In addition, the global scientific community has expressed very high confidence (at least 90 percent) that global warming is anthropogenic (caused by humans), and that global warming will lead to adverse climate change effects around the globe. Furthermore, there have been several lawsuits against lead agencies for a lack of discussion of this issue in recent EIRs. One of the lawsuits was filed by the State Attorney General against the County of San Bernardino.

PBS&J will provide clear documentation of the master plan process, findings and tools. This is a Water Resources Master Plan that you can use to find the information you need, and to transfer knowledge to new staff, and a PEIR that will provide a strong defense against the typical legal challenges of which growing agencies are often confronted.



SCOPE OF WORK ASSUMPTIONS AND CLARIFICATIONS

The following provides clarifications regarding the Program EIR scope of work provided in the RFP, and it pertains to the PBS&J Program EIR cost. The clarifications are provided by the RFP task numbers.

Task 2.2 Land Use Database and Model Development

- ❖ SCADA system will be reviewed as linked with the GIS database. No additional monitoring locations will be added.
- ❖ Assume that the meter data is linked to APNs/parcels and/or address, and two (2) years of data provided.

Task 2.4 Hydraulic Model Development, Calibration, and Analyses

- ❖ Assume GIS connectivity is correct and no major clean-up of data is anticipated.
- ❖ We will develop one (1) model for the water system, which includes both North and South Districts and each pressure zone, and scenarios for existing, 6-year, and ultimate conditions.
- ❖ SCADA data will be supplemented with pressure readings via "Telog" recorders during calibration. No flow testing of hydrants will be performed.
- ❖ Assume no water quality monitoring/testing.
- ❖ The existing condition will include GIS data as of September 1, 2007. No further additions to the GIS will be included after receipt of the data.

Task 2.5 Facility Needs to Meet Existing and Future Supplies

Some items under this task are budgeted in previous tasks.

Task 2.7 Prepare Draft WRMP Report

Assume that Otay Water District staff will provide the electronic files in MS Word (.doc) and Excel (.xls) for the 2002 WRMP.



Task 3.5 Revise and Finalize the IS – Two sets of revisions

Task 3.6 Prepare, Revise, and Distribute Notice of Preparation (NOP) – One set of revisions

Task 3.8 Prepare Draft PEIR

E.5 Cultural Resources

This effort does not include a record search from the South Coast Information Center or San Diego Museum of Man, and instead will rely on the approach from the 2004 PEIR.

I. Project Alternatives

The project alternatives will address up to three alternatives. This includes the no project alternative and two other alternatives developed in consultation with Otay Water District staff.

Task 3.9 Submit and Revise Screen Check Draft PEIR

This task includes two sets of revisions to the Screen Check Draft PEIR. The document printing budget for this task has been estimated at \$12,600.

Task 3.12 Prepare Draft Responses to Comments on Draft PEIR

The level of effort associated with the preparation of response to comments depends on the number of comments received. This is unknown, therefore a budget of 80 hours of professional time has been budgeted for this effort.

Task 3.13 Final Responses to Comments on Draft PEIR

The level of effort associated with the preparation of revisions to the response to comments depends on the number of comments received. This is unknown, therefore a budget of 34 hours of professional time has been budgeted for this effort.

Task 3.14 Prepare Final PEIR

The document printing budget for this task has been estimated at \$10,440.

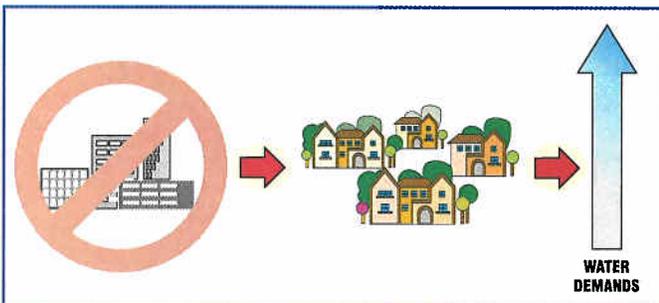


Knowledge of Local Environment

While the 2002 WRMP is built on a firm foundation, conditions are rapidly changing in the Otay service area. PBS&J is strategically positioned to fully capitalize on our knowledge of local issues to benefit the Otay Water District and provide a 2009 WRMP that responds to land use amendments, regulatory updates, financial issues and technological improvements.

LAND USE PLANNING IN OTAY MESA

We know that development plans for the Otay Mesa area are always in flux, and that the success of your 2009 WRMP will require on-the-ground knowledge of how specific developments are unfolding. As an example, the City of San Diego is in the process of updating the Otay Mesa Community Plan originally adopted in 1981. Approximately half of this 9,300-acre area is within the Otay Water District service area. Three alternative land use proposals have been presented to the community, and developers are proceeding with the planning elements based on one or more of these alternatives. To expedite the 2007 Program EIR for this Community Plan Update, PBS&J was involved in developing an extensive Technical Infrastructure Study and Water Supply Plan that addressed each of the proposed land use alternatives. PBS&J is very qualified in our understanding of the proposed development plans, the impact on water and recycled water demands and distribution, as well as the complexity of the politics associated with this update, and we will integrate this information into the 2009 WRMP. In the 2009 WRMP, PBS&J staff will develop a plan that embraces the dynamic nature of land use planning in Otay Mesa, and the PEIR will serve as a defensible environmental document that supports that plan.



WATER DEMANDS INCREASE: Land use that moves away from commercial uses and moves toward more residential development makes the demand for water rise. Our new modeling tools will determine the new water demands for the future and help make good decisions for planned CIP projects.

REGULATORY ENVIRONMENT – WATER SUPPLY

We know that local water supply plans, and the regulatory environment in which those plans will be implemented, have changed. Otay Water District’s IRP Implementation Plan identifies treatment of raw water at the City of San Diego Alvarado Water Treatment Plant and water banking as short term projects to enhance water supply.

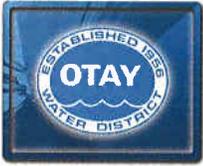


TARGET COMPLIANCE: We will incorporate recommendations from the IRP and target the WRMP and Program EIR to meet the goals required by SB 610.

The success of the 2009 WRMP will require the integration of these elements into the Water Resources Master Plan. By covering these elements in the WRMP and Program EIR, it is possible that these will serve to provide the documentation needed to justify water supply for all new developments in the Otay Water District. PBS&J has been preparing SB610/221 plans in the Otay service area, and recognizes the challenges associated with relying on San Diego County Water Authority and Metropolitan Water District of Southern California documents to account for local water supply assurances. PBS&J would aim to provide a WRMP and Program EIR that allows Otay Water District to use its own documentation for providing the water supply verification requirements of SB 610/221.

REGULATORY ENVIRONMENT – WATER QUALITY

We know that hydraulic model calibration is critical to helping your Operations Department manage drinking water quality and maintaining customer satisfaction. The accuracy and reliability of the District’s water models are paramount to making operational system decisions so that



the District can continue to provide high quality water and adequate flow and pressure to its customers. PBS&J's experience with InfoWater (agency water simulations), and our knowledge of how to accurately and efficiently calibrate these models to match the operational field conditions for the District, will prove invaluable to your Operations Department.

REGULATORY ENVIRONMENT – RECYCLED WATER

Having just completed the Master Reclamation Permit for Otay, we know that recycled water permitting conditions are getting more stringent. Otay Water District's IRP Implementation Plan identifies the purchase of additional recycled water from the City of San Diego and expansion of the recycled water system into the North District as short term projects to enhance water supply. There are very real permitting issues associated with recycled water service to the North District. Use of recycled water in the Jamacha Hydrologic Subarea, which is upgradient of the Sweetwater Reservoir, is not currently allowed in the District's Master Reclamation Permit. The Regional Water Quality Board will require an amendment to the Master Permit, and may require a basin plan amendment to allow use of recycled water in the North District. PBS&J has the background and understanding of the Basin Plan and permitting issues that will allow us to thoroughly evaluate the feasibility of expanding the recycled water system into the North District and possibly negotiate terms with the Regional Board, as we successfully did on the Master Reclamation Permit, to expedite this project.

PBS&J recognizes that the Otay Water District is a local leader in recycled water planning, and we will look for

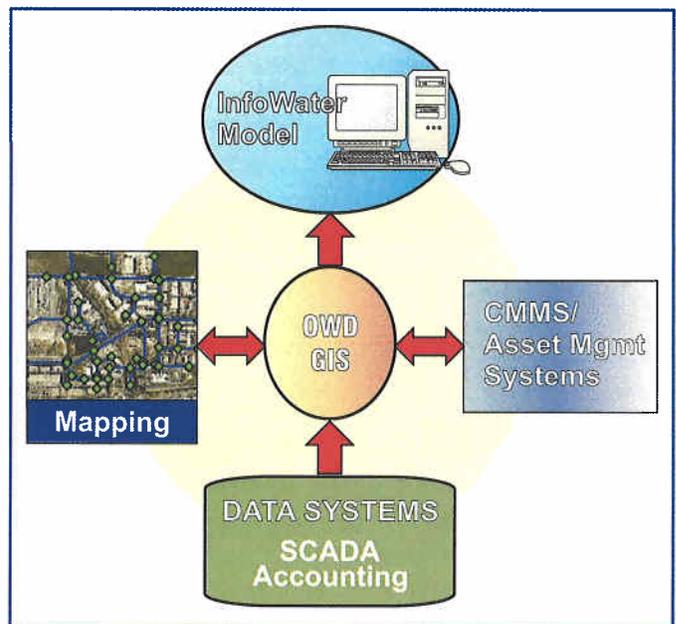


PBS&J's James Strayer, President of the WaterReuse Association - San Diego Chapter, congratulates Otay Water District on its vision and commitment to recycled water use at the Supply Link Reservoir dedication on June 1, 2007.

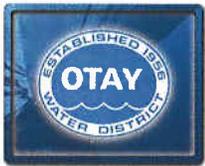
additional opportunities to include dual plumbed facilities in the Otay Mesa area as part of the recycled water marketing plan. This type of use is allowed in the District's Master Reclamation Permit, but requires special attention to implementation and regulatory reporting and approval requirements. PBS&J's relationship with regulatory staff will be of great assistance to the District in expediting those approvals.

GIS INTEGRATED TECHNOLOGY/MODELING

We know that technology has also changed and that the success of your 2009 WRMP will require the ability to develop cost-effective, user-friendly GIS tools that meld infrastructure/asset management details with land use protocols. Advancements in technology have allowed large districts to integrate their GIS databases with hydraulic models. These advancements can significantly reduce the amount of time needed to build models, while maintaining a 1-to-1 relationship with the GIS, as well as other databases such as SCADA and CMMS. Powerful solving engines provide accurate results and "peace of mind" for even large districts such as the Otay Water District. PBS&J will provide expertise and efficiency in integrating the District's databases to provide District staff with phenomenal tools that will assist all the departments within the District.

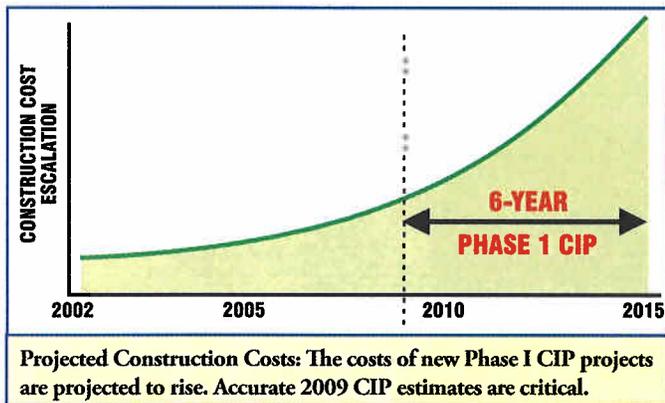


DATA MANAGEMENT PLAN: This example of a Data Management Plan shows how the various data and analysis tools are integrated with the GIS system and each other for maximum value.



CONSTRUCTION COSTS AND FINANCIAL PLANNING

We know that construction costs are exponentially increasing each year, and this critically affects the District's ability to meet its Capital Improvement Program budget and schedule. AB1600 has made it imperative for agencies to account for the costs of expansion projects separately from the costs of existing system improvement costs, so that "growth pays for growth." This is an important distinction that PBS&J's financial staff will be able to implement to the District's advantage. Karyn Keese and her financial team maintain up-to-date cost databases and provide unparalleled financial planning expertise. Ms. Keese will provide the District with up-to-date construction cost estimating and financing tools that will allow the District to meet its capital improvement and operation and maintenance financial commitments.



LOCAL EXPERIENCE

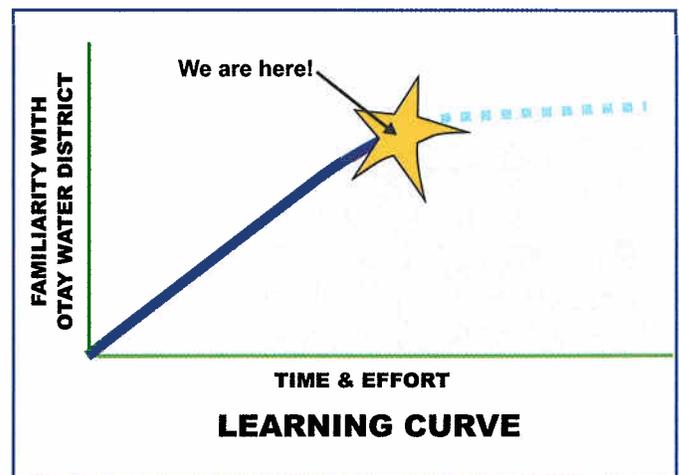
We know that local experience and knowledge is critical to preparing a comprehensive master plan. From 1997 - 1999, PBS&J provided as-needed engineering services to the Otay Water District and had staff working in your offices, getting to know your (now) senior engineering staff and office procedures. Some of our key projects included:

- ❖ Development of H₂O Net Models for Regulatory and La Presa Systems
- ❖ 680 Recycled Water Reservoir Pre-Design
- ❖ 711 Reservoir Siting Study
- ❖ Buena Vista Pump Station Design

Since then, PBS&J has ushered many local water and recycled water projects through Development Services. Having achieved the District's approval of numerous Subarea Master Plans (SAMPs) and other water system analyses for local developer projects (Otay Ranch Villages 6 and 7, Eastlake, Sunbow and EUC, to name a few) in the past 20 years, PBS&J is well-positioned to integrate the most current planning documents into the GIS and hydraulic models. PBS&J also understands what neighboring agencies have planned, as we have provided recent master planning studies for the City of San Diego, the City of Chula Vista, and the San Diego County East Otay Mesa area.

PBS&J has provided design services for the City of San Diego at the Otay Water Treatment Plant, which has been important to near-term and future water supply for the District. Our work on the San Diego County Water Authority Emergency Storage Project gives us a broad understanding of regional water issues in San Diego County and a strong working relationship with their staff. Relationships are key, whether with local agency staff, local developers, or local stakeholders. PBS&J boasts strong communication and a successful history of working with all of these local players.

Our familiarity with the Otay Water District will result in a cost-effective CIP.



ID	Task Name	Duration	May 6, '07	Jun 24, '07	Aug 12, '07	Sep 30, '07	Nov 18, '07	Jan 6, '08	Feb 24, '08	Apr 13, '08	Jun 1, '08	Jul 20, '08	Sep 7, '08	Oct 26, '08	Dec 14, '08	Feb 1, '09	Mar 22, '09	May 10, '09
1	Task Management	286 days																
17	Existing Facility Review	30 days																
22	Land Use Database & Model Development	100 days																
23	Incorp existing land use	5 days																
24	Understand GIS & other systems	10 days																
25	Subdivide Parcels by Land Use	5 days																
26	Update w/ Ultimate Projections	5 days																
27	Link Meter Data to Parcels	18 days																
28	Link Database to Hydraulic Model	30 days																
29	Demand Projections	79 days																
30	Review SandAG Projections	10 days																
31	Quantity Historical Demands	10 days																
32	Evaluate Demands by Meter Data	25 days																
33	Quantity Future Demands	10 days																
34	Develop Demand Patterns	5 days																
35	Update RW Market Assessment	15 days																
36	Hydraulic Model Calibration/Analysis	180 days																
37	Prepare Models	45 days																
38	Calibrate using SCADA data	35 days																
39	Hydraulic Analysis	47 days																
40	Identify Deficiencies	10 days																
41	Facility Needs	10 days																
47	CIP Recommendations	25 days																
48	Recommend Projects	10 days																
49	CIP Implementation Plan	5 days																
50	Cost Opinion	10 days																
51	Updated CIP List	5 days																
52	WRMP Report Deliverables	281 days																
53	30% Draft Deliverable	0 days																
54	60% Draft Deliverable	0 days																
55	Meeting #1	0 days																
56	90% Draft Deliverable	0 days																
57	90% Board Meeting	0 days																
58	Meeting #2	0 days																
59	100% Final Deliverable	0 days																
60	100% Board Meeting	0 days																
61	CD & Final Documentation	0 days																
62	Model Training & Workshop	5 days																
63	Program EIR	248.5 days																
64	PEIR Kick-off Meeting	0 wks																
65	Receive CIP Projects	0 wks																
66	Conduct Field Reviews	2 e wks																
67	Prepare Preliminary Project Description	10 days																
69	Initial Study/NOP	62.5 days																
70	Prepare Initial Study/NOP	4 wks																
71	Submit Initial Study	0 wks																
72	District Review Initial Study/NOP	2 wks																
73	Review & Distrib. Initial Study/NOP	2 wks																
74	NOP Public Review Period	4.5 wks																
75	Public Scoping Meetings (6)	4 wks																
76	Technical Studies	20 days																
78	First Screen Check DEIR	75 days																
82	Second Screen Check DEIR	35 days																
86	Final DEIR	15 days																
88	Notice of Completion	5 days																
90	Public Review of Draft EIR	38 days																
94	Findings/MMP	15 days																
97	Environmental Review Checklist	10 days																
100	Final EIR and Response to Comments	85 days																
101	Prepare 1st Screen Check FEIR and RTC	5 e wks																
102	Review Findings/MMP	2 e wks																
103	Submit 1st Screen Check FEIR, RTC, Find, MMP	0 wks																
104	District Review	3 e wks																
105	Prepare 2nd Screen Check FEIR	3 e wks																
106	Submit 2nd Screen Check FEIR	0 wks																
107	District Review	3 wks																
108	Revise Final EIR	2 e wks																
109	Prepare NOD	1 e wk																
110	Print Final EIR	1 e wk																
111	Distribute Final EIR Copies	12.5 days																
112	Board Hearing	0 wks																
113	Attend Board Hearing	2.5 wks																
114	File NOD	0 wks																

Project, OWD Schedule
Date: Wed 8/6/07

Task: [] Skill: [] Progress: [] Milestone: [] Summary: [] External Tasks: [] External Milestone: [] Deadline: []



Cost Proposal

As discussed at the pre-proposal meeting, the District has established a budget of \$500,000 for FY 2007-2008 for the project. In putting together our fee estimate, we attempted to carefully balance the desired budget with the need to make sure that each task and each hour spent produces tangible value. This is especially important with planning projects. Our experience in putting together similar master plans in San Diego County has shown that a few extra hours spent during planning can refine CIP program costs to the point where the entire master plan effort is paid for in the savings.

Our approach is a value approach. For example, we assumed spending quality time assessing the Jamacha supply feed – a critical new supply change for the District. To save on fees, we feel that there is opportunity to reduce the PEIR efforts currently outlined in your scope of work, which would further reduce our budget.

If selected, we would work closely with the District to refine our scope and fee to provide the level of effort and value desired. The end goal is to produce a valuable document and a learning experience for new staff. For this proposal, and with the understanding we currently have, our estimated fee for the WRMMP and the Program EIR is \$619,700. A breakdown of the WRMMP and Program EIR is as follows:

Water Resources Master Plan	\$386,800
WRMMP Subs/Printing	\$ 23,500
Program EIR	\$175,900 **
PEIR Subs/Printing	\$ 33,500

Total	\$619,700

** Note - opportunities to reduce scope of work here

TASK DESCRIPTION			LABOR CODE/STAFF HOURS											TOTALS		
Pt	Task	Task/Sub	SSIV \$190	SSII \$150	SIII \$125	SI \$98	AS \$75	SAIL \$85	-	-	-	-	-	-	HOURS	FEE
	3	PROGRAM EIR													0	\$0
	3.1	REVIEW EXIST DOCUMENTS													0	\$0
		Review 2002 PEIR/MP & IRP et al				32									32	\$3,136
		SUBTOTAL													32	\$3,136
	3.2	FIELD REVIEWS	4												4	\$760
		Conduct Field Review (50 CIPs)		100											100	\$15,000
		SUBTOTAL													104	\$15,760
	3.3	PRELIM PROJECT DESCRIPTION													0	\$0
		Prepare Prelim. Project. Descrip.			6	24		6							36	\$3,612
		SUBTOTAL													36	\$3,612
	3.4	PREPARE INITIAL STUDY (IS)	2												2	\$380
		IS checklist		6		40		4							50	\$5,160
		15 copies of DRAFT													0	\$155
		SUBTOTAL													52	\$5,695
	3.5	FINAL IS	2												2	\$380
		Revise IS (2 sets of comments)		4		16		4							24	\$2,508
		15 copies of Final DRAFT													0	\$155
		Prepare FINAL IS		2		6		2							10	\$1,058
		25 copies of FINAL IS													0	\$258
		SUBTOTAL													36	\$4,358
	3.6	NOTICE OF PREPARATION	2												2	\$380
		Prepare DRAFT NOP		1		8		2							11	\$1,104
		Revise NOP & Distribute		1		2		4							7	\$686
		100 copies of NOP only													0	\$103
		NOP certified mail													0	\$567
		CEQA Documentation					12								12	\$900
		SUBTOTAL													32	\$3,740
	3.7	SCOPING MEETINGS	4												4	\$760
		Prep. Presentation		6		16									22	\$2,468
		6 community scoping meetings		36			30								66	\$7,650
		Meeting Documentation		4			12	1							17	\$1,585
		SUBTOTAL													109	\$12,463
	3.8	PREPARE DRAFT PEIR	24												24	\$4,560
		Meetings with OWD Staff (10)		40											40	\$6,000
		Intro.				6		1							7	\$673
		Project Description		2	4	16		6							28	\$2,878
		Setting		1		6		1							8	\$823
		Executive Summary		1		12		2							15	\$1,496
		Air Quality Tech. Report													0	\$4,356
		Air Quality		1		12		1							14	\$1,411
		Biological Resources		6	80	60		8							154	\$17,460
		Climate Change		2		24		1							27	\$2,737
		Cultural Resources		1		16		1							18	\$1,803
		Energy		1	2	16									19	\$1,968
		Geology, Soils & Paleo.		2		16									18	\$1,868
		Hydrology/Water Quality		2		20		1							23	\$2,345
		Landform Alteration and Visual		2	24			4							30	\$3,640
		Land Use/Planning		2		24		2							28	\$2,822
		Noise		2		20		1							23	\$2,345
		Public Safety		2		20		1							23	\$2,345
		Traffic and Circulation		2	24			1							27	\$3,385
		Effects Found Not Significant		1		4		1							6	\$627
		Significant Irreversible Env. Changes		1		4		1							6	\$627
		Unavoidable Sig. Impacts		1		2		1							4	\$431
		Project Alternatives		2	32			2							36	\$4,470
		Cumulative Effects		4		24		2							30	\$3,122
		Growth Inducement		2	16			1							19	\$2,385
		Reference					2	1							3	\$235
		SUBTOTAL													630	\$76,812

TASK DESCRIPTION			LABOR CODE/STAFF HOURS												TOTALS	
Pt	Task	Task/Sub	PRIV JS	PRIII GE	SPEII ME	SPEII JD	SEI JB	SP BS	SPI MC	SAIII DS	PP KK	-	-	-	HOURS	FEE
	2.6	CIP RECOMMENDATIONS													0	\$0
		Recommended Projects			4	8	32								44	\$6,153
		CIP Implementation Plan		2	4	16	8				8				38	\$6,429
		Cost Opinion		2	4	4	8								18	\$2,831
		Update CIP List			2	4	4				4				14	\$2,311
		SUBTOTAL													114	\$17,724
	2.7	WRMP REPORT													0	\$0
		Meetings (2)				8	8								16	\$2,396
		30% Draft Report (w/o Appendix)	2		8	12	24								46	\$6,958
		60% Draft Report (w/o Appendix)	2	2	8	24	32		24	4					96	\$13,915
		90% Draft Report (w/ Appendix)	4	2	16	32	40	4	32	4					134	\$19,862
		100% Report	2	2	4	16	24		16	12					76	\$10,608
		CD Documents				4	8			8					20	\$2,500
		Presentation for Board	4	2	8	16	16								46	\$7,511
		Printing (30%,60%,90%, Final plus misc.)													0	\$10,863
		Model Training Wksp & Manuals			4	8	40		4	8					64	\$8,474
		SUBTOTAL													498	\$83,086
			PRIV	PRIII	SPEII	SPEII	SEI	SP	SPI	SAIII	PP	-	-	-	PAGE TOTALS	
TOTAL - WRMP			32	22	240	436	1556	24	366	36	23	0	0	0	2,735	\$409,238

TASK DESCRIPTION			LABOR CODE/STAFF HOURS													TOTALS	
Pt	Task	Task/Sub	PRIV	PRIII	SPEII	SPEII	SEI	SP	SPI	SAllI	PP	-	-	-	HOURS	FEE	
			JS	GE	ME	JD	JB	BS	MC	DS	KK	-	-	-			
	1	PROJECT MANAGEMENT													0	\$0	
		Kick-off Meeting	2		4	4	6		4						20	\$3,103	
		Project Schedule			2	2	4		1						9	\$1,325	
		Monthly Status Reports (12-mo.)			12	12	12								36	\$5,653	
		Monthly Meetings (12-mo.)	9		24	18	36		9		3				99	\$15,581	
		Meeting Agendas (12)					12								12	\$1,535	
		Meeting Minutes (12)			4	4	12								20	\$2,908	
		2 Board Meetings	2		8		8				4				22	\$3,621	
		Coordination w/ District			8		24								32	\$4,443	
		SUBTOTAL													250	\$38,170	
	2.1	EXIST FACILITY REVIEW													0	\$0	
		Review Master Plans & IRP	1		16	16	24		4		4				65	\$10,066	
		Review existing system info.			8	8	8								24	\$3,769	
		Review Development Plans	2		8	8	24								42	\$6,271	
		Collect Meter Cosumpt. Data			2		8		8						18	\$2,382	
		SUBTOTAL													149	\$22,488	
	2.2	LAND USE DATABASE													0	\$0	
		Incorp. Existing land uses					4	2	32						38	\$4,925	
		Understand GIS & systems					4	4	24						32	\$4,264	
		Meetings w/ GIS/Eng Staff (4)					12	6	12						30	\$4,118	
		Link Meter Data to Parcels					8	8	60						76	\$10,051	
		Update w/ Ultimate Projections							48						48	\$6,090	
		Subdivide Parcels by Land Use				4	8		40						52	\$6,785	
		Link Database to Hydr. Models			2	4	80		40						126	\$16,338	
		SUBTOTAL													402	\$52,572	
	2.3	DEMAND PROJECTIONS													0	\$0	
		Review SANDAG projections				4	12		8						24	\$3,236	
		Quantify Historical Demands		2	4	8	12								26	\$4,029	
		Evaluate Demands by Meter Data			8	16	40								64	\$9,235	
		Quantify Future Demands			2	8	20								30	\$4,274	
		Develop Demand Patterns			4	8	40								52	\$7,176	
		Update RW Market Assessment	2		4	24	24								54	\$8,330	
		SUBTOTAL													250	\$36,281	
	2.4	HYD MODEL/CALIB/ANALYSIS													0	\$0	
		Prepare North/South Potable Models			8	20	200								228	\$30,389	
		Prepare Recycled Water Model			2	4	40								46	\$6,146	
		Calibrate North System w/ SCADA			8	12	80								100	\$13,666	
		Calibrate South System w/ SCADA			12	16	120								148	\$20,155	
		Calibrate Recycled Model w/ SCADA			4	8	40								52	\$7,176	
		Calibration Subconsultant													0	\$12,597	
		Potable Hyd. Analysis (6-yr. & Ult.)			4	24	280								308	\$40,622	
		Recycled Hyd. Analysis (6-yr & Ult.)			4	8	60								72	\$9,734	
		Identify Deficiencies			4	8	24								36	\$5,129	
		SUBTOTAL													990	\$145,615	
	2.5	FACILITY NEEDS													0	\$0	
		Evaluate system performance (2.4)													0	\$0	
		Incorp. IRP projects		4	4	4	2								14	\$2,498	
		Identify & Recommend Improve's			4	8	24								36	\$5,129	
		Determine future demands (2.3)													0	\$0	
		Emergency Water Analysis		4	4	24									32	\$5,674	
		SUBTOTAL													82	\$13,302	



Statements & Insurance Requirements

Statements of Compliance

PBS&J affirms the following statements as required in the Otay Water District Request for Proposal to Provide Professional Engineering Planning Services for the 2009 Water Resources Master Plan Update and Program Environmental Impact Report.

- ❖ All work will be performed on a time and materials “not-to-exceed” basis for the agreed to price. We acknowledge that no additional compensation will be received beyond the price negotiated for each task in the scope of work unless changes are approved in advance by a change order signed by the District.
- ❖ This proposal is a firm offer for a period of 90 days.

AUTHORITY TO NEGOTIATE

Mr. James Strayer, Associate Vice President, 175 Calle Magdalena, Encinitas, CA, 92024, 760.525.6230, has full authority to represent and contractually bind PBS&J.

EBE/DBE/MBE/SBE OUTREACH

PBS&J takes seriously our corporate commitments. These include supporting emerging, disadvantaged, minority and small businesses in the communities in which we work. We also extend this philosophy to the communities in which we work by supporting local university programs, such as the MESA program.

PBS&J is committed to participating in the success of emerging and small business enterprises on all of our pursuits. To this end, PBS&J has teamed with Scientific Resources Associated, a certified SBE and Women-owned Business Enterprise (WBE). In addition, LOS Engineering, has submitted the required application and is awaiting notification to be certified as a WBE.

Evidence of Insurance

PBS&J understands and generally agrees with the insurance and coverage requirements. PBS&J uses the standard Acord form for insurance certificates. A Specimen certificate is provided on the following page.

Exceptions to the Agreement

PBS&J has reviewed the District’s agreement, and as we have negotiated numerous types of contracts with numerous agencies, we are confident that we will be able to expedite approval of the contract as it stands. However, if there was an opportunity to make some adjustments, we would prefer the following exceptions to the District’s Agreement for Professional Engineering Planning Services.

IX. Indemnification

Subsection A.1

- ❖ Delete the words “and, at DISTRICT’s request, defend” from line 2.
- ❖ Insert the word “certified” in front of “volunteers” in line 3.

Subsection A.2

- ❖ Delete the words “will defend DISTRICT (at DISTRICT’s request and with counsel satisfactory to DISTRICT) and” from lines 7-8.

X. Insurance Requirements

Subsection B

- ❖ Change line 4 to read as follows: “The Commercial General Liability and Automobile Liability policies will be endorsed to name....”

**PBS&J CALIFORNIA ENVIRONMENTAL
STANDARD RATE SCHEDULE
EFFECTIVE JANUARY 1, 2007**

ENGINEERING SERVICES

Principal Engineer IV	\$228.00
Principal Engineer III	217.00
Principal Engineer II.....	197.00
Principal Engineer I.....	186.00
Supervising Engineer II.....	172.00
Supervising Engineer I	161.00
Senior Engineer III.....	145.00
Senior Engineer II.....	138.00
Senior Engineer I.....	128.00
Engineer III	123.00
Engineer II.....	119.00
Engineer I	107.00
Engineering Aide.....	70.00

CONSTRUCTION RELATED SERVICES

Senior Construction Manager.....	\$139.00
Construction Manager	124.00
Senior Project Engineer (Const.).....	129.00
Senior Field Representative*.....	108.00
Construction Management Rep. II*	92.00
Construction Management Rep. I*.....	84.00
Prevailing Wage Field Rep.**.....	114.00
Sr. Contract Administrator.....	104.00
Contract Administrator.....	82.00

OTHER PROFESSIONAL SERVICES

Principal Professional	\$192.00
Supervising Professional.....	177.00
Sr. Professional III / Sr. GIS Analyst III	151.00
Senior Professional II / Sr. GIS Analyst II	140.00
Senior Professional I / Sr. GIS Analyst I	127.00
Professional II / GIS Analyst II	105.00
Professional I / GIS Analyst I	92.00

EXPENSES AND OUTSIDE SERVICES

In addition, identifiable non-salary costs that are directly attributable to the project such as reproduction costs, telephone charges, mileage, postage, etc., are billed at actual cost plus 10 percent to cover overhead, administration, and insurance costs.

Principal Engineer IV and litigation support rates negotiated on a contract by contract basis.

Computer Aided Drafting, hydrologic water, sewer, and stormwater modeling, GIS, automated mapping, database and web programming, etc., is charged at \$5 per labor hour.

* Non-Prevailing Wage

** Prevailing Wage Rate – Overtime will be charged at 1.25 times, and Sundays and holidays, 1.70 times the above rates.

If applicable, a vehicle allowance of \$900.00 per month will be charged for the use of a company vehicle assigned to a full-time inspector. This monthly allowance will be prorated based upon hours worked for part-time inspection.

Fees for litigation and expert witness services will be charged at \$450.00 per hour with a 4-hour minimum per day.

Fees for subconsultant services provided are billed at actual cost plus 10 percent to cover overhead, administration, and insurance costs.

PAYMENT TERMS

A late payment finance charge at a rate of 18 percent per annum will be applied to any unpaid balance commencing 30 days after the date of original invoice.

This rate schedule is subject to annual and/or periodic revisions as necessary to accommodate inflationary trends, salary adjustments and the general costs of business.

DESIGN & GRAPHIC SERVICES

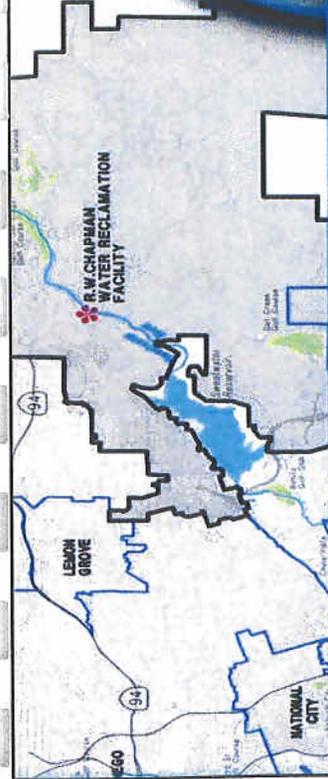
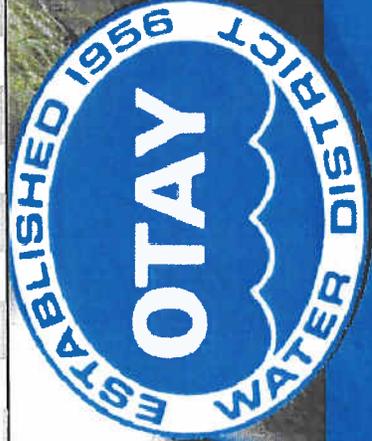
Senior Designer III.....	\$138.00
Senior Designer II	133.00
Senior Designer I.....	123.00
Designer II	112.00
Designer I.....	101.00
CAD Technician III	101.00
CAD Technician II.....	97.00
CAD Technician I	96.00
Graphics Designer II.....	83.00
Graphics Designer I	70.00

ENVIRONMENTAL SCIENCE

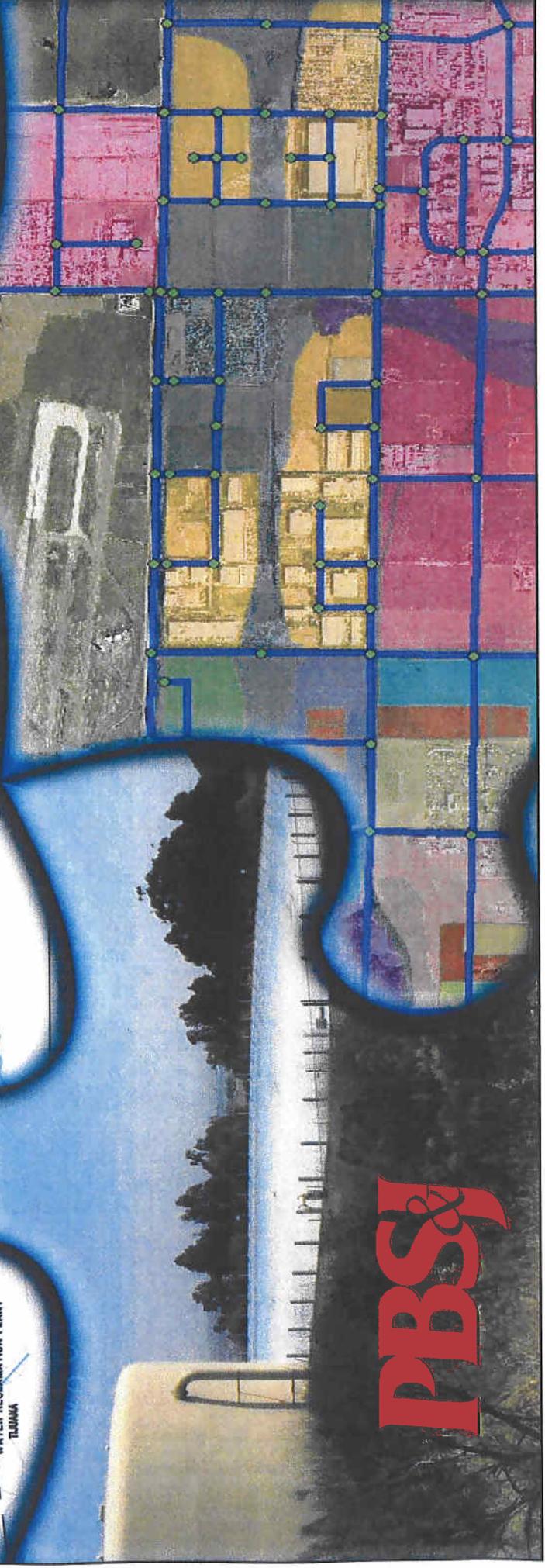
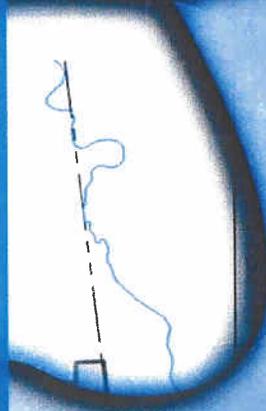
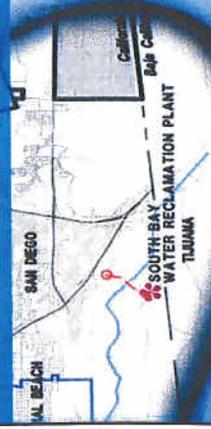
Supervising Scientist	\$190.00
Senior Scientist III	179.00
Senior Scientist II.....	150.00
Senior Scientist I	135.00
Scientist III	125.00
Scientist II	115.00
Scientist I.....	98.00
Assistant Scientist.....	75.00
Research Assistant.....	57.00

ADMINISTRATIVE SERVICES

Senior Administrator	\$125.00
Senior Administrative Assistant III.....	99.00
Senior Administrative Assistant II.....	88.00
Senior Administrative Assistant I	83.00
Administrative Assistant III	73.00
Administrative Assistant II.....	68.00
Administrative Assistant I / Clerk	59.00



2009 Water Resources Master Plan Update and Program Environmental Impact Report



PBS



Otay Municipal Water District
 Ken Simmons, PE
 Meryll Gonzalez

Principal-in-Charge
 James Strayer, PE

Project Manager
 Mark Elliott, PE - WRMP
 Kim Howlett - PEIR

Technical Review
 Gary Eikermann - WRMP
 John Moynier - PEIR

**GIS Integration/
 Land Use Database**
 Bradley Scott
 Melisa Caric
 Jack Hampson, CFM

**Water & Recycled
 Water Demand Models**
 Jennifer Bileck, PE, CFM
 Jennifer Duffy, PE
 Doug Gillingham, PE, BCEE

**CIP Project List &
 Master Plan Report**
 Jennifer Bileck, PE, CFM
 Jennifer Duffy, PE
 Karyn Keese

**Program
 EIR**
 Michael Gonzales
 Diane Catalano

**Hydraulic Model, Analysis
 & Facility Needs**
 Infowater Modeling
 Water System Calibration
 IRP Integration
 Operational Analysis &
 Facility Needs
 Jennifer Bileck, PE, CFM
 Tom Degen, PE, Earth Tech
 Doug Gillingham, PE, BCEE
 James Strayer, PE

Program EIR Specialists

Air Quality	Valorie Thompson, Ph.D. - Scientific Resources Associated (WBE)
Biological Resources	John Spranza Ronald Walker
Cultural Resources	Susan Hector, Ph.D. - ASM Jerry Schaefer, Ph.D. - ASM
Land Use Planning Noise	Randy Rodriguez Geoff Hornek
Traffic & Circulation	Justin Rasas, PE, TE, PTOE - LOS Engineering

PBS&J understands your needs

PBS&J

- ▶ **Building upon 2002 WRMP & 2004 PEIR to maximize efficiency**
- ▶ **Creating a GIS land use model that supports Otay Mesa Community Plan Update**
- ▶ **InfoWater modeling expertise in OWD allows efficient validation of your CIP**

PBS&J understands your needs

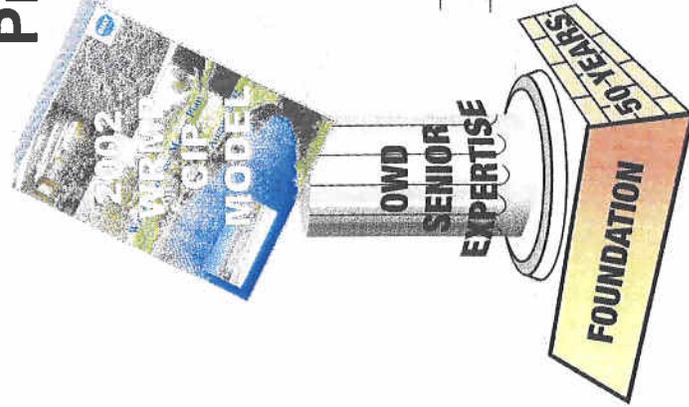
PBS&J

- ▶ **Recognizing that an expanded recycled water minimizes imported water supply**
- ▶ **Providing a streamlined CEQA process that allows faster CIP implementation**
- ▶ **Supporting Otay's staff with knowledge and planning tools**

Project Understanding & Approach = OWD Benefits

PBSJ

Project Understanding



TOOLS FOR STAFF

CIP LIST

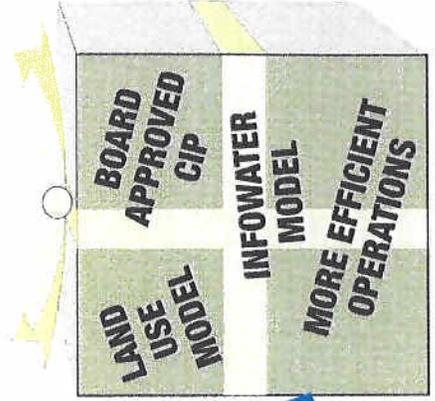


+ Approach



NEW TOOLS FOR STAFF

= OWD Benefits



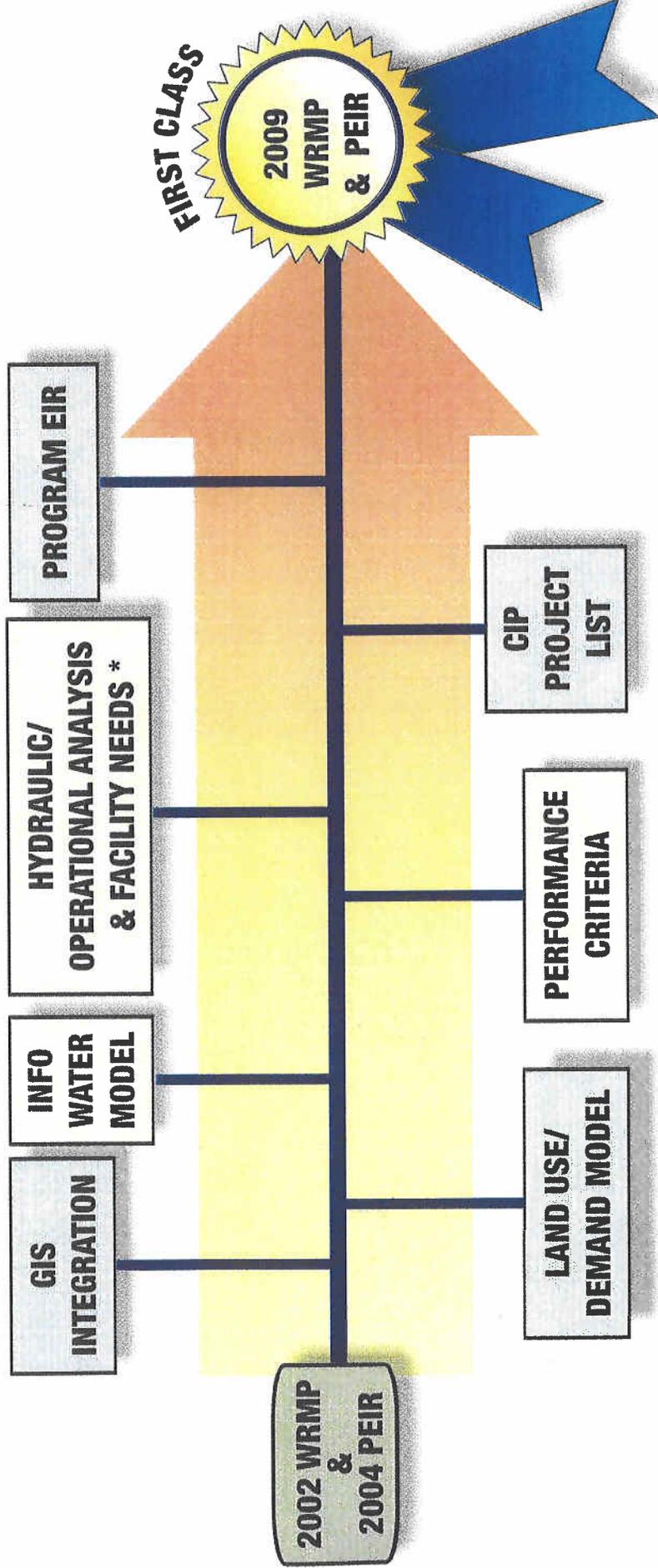
Integrated Team Approach

PBS&J



Project Approach

PBS

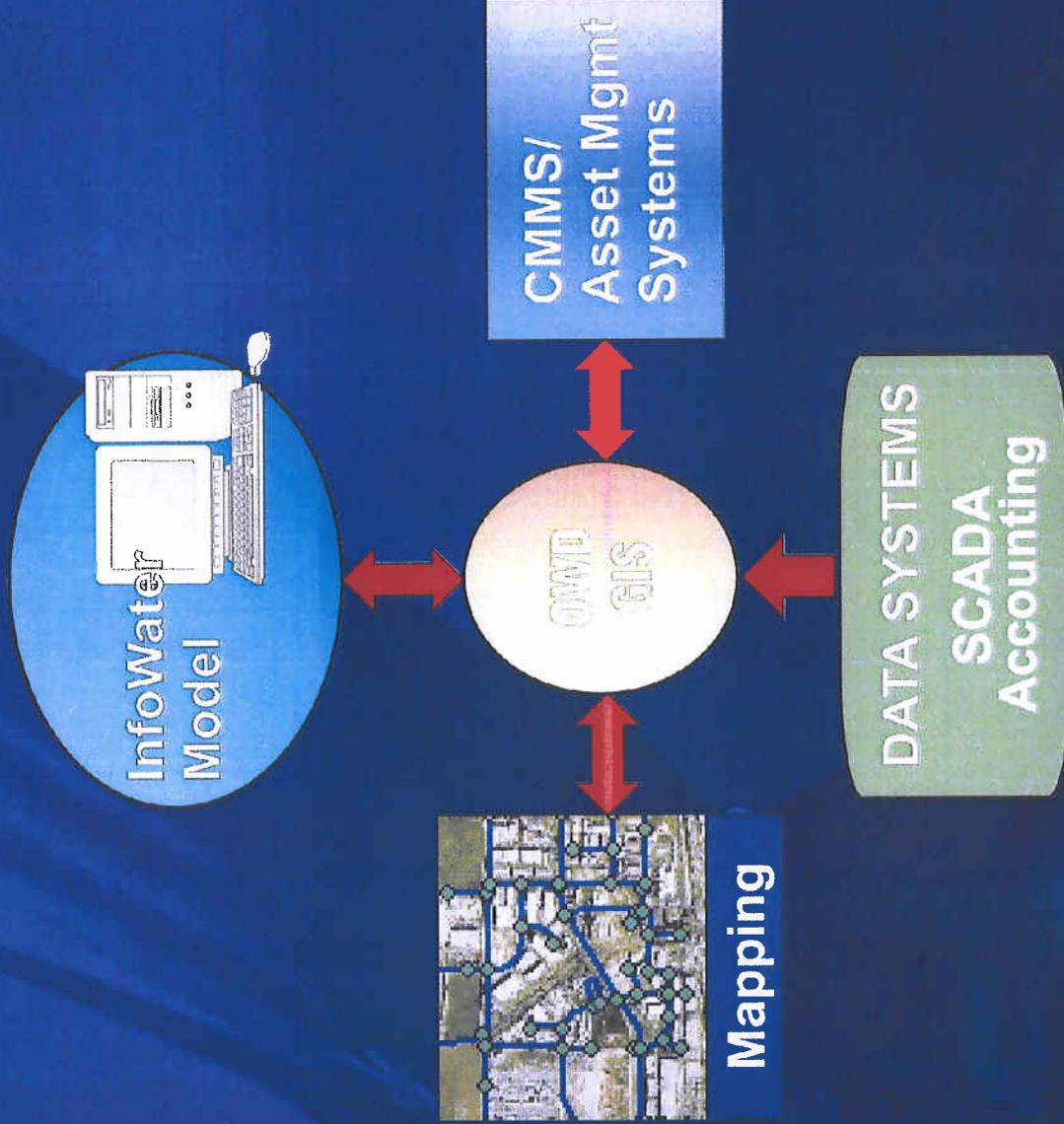


* Includes IRP integration

OWD GIS & Land Use Model

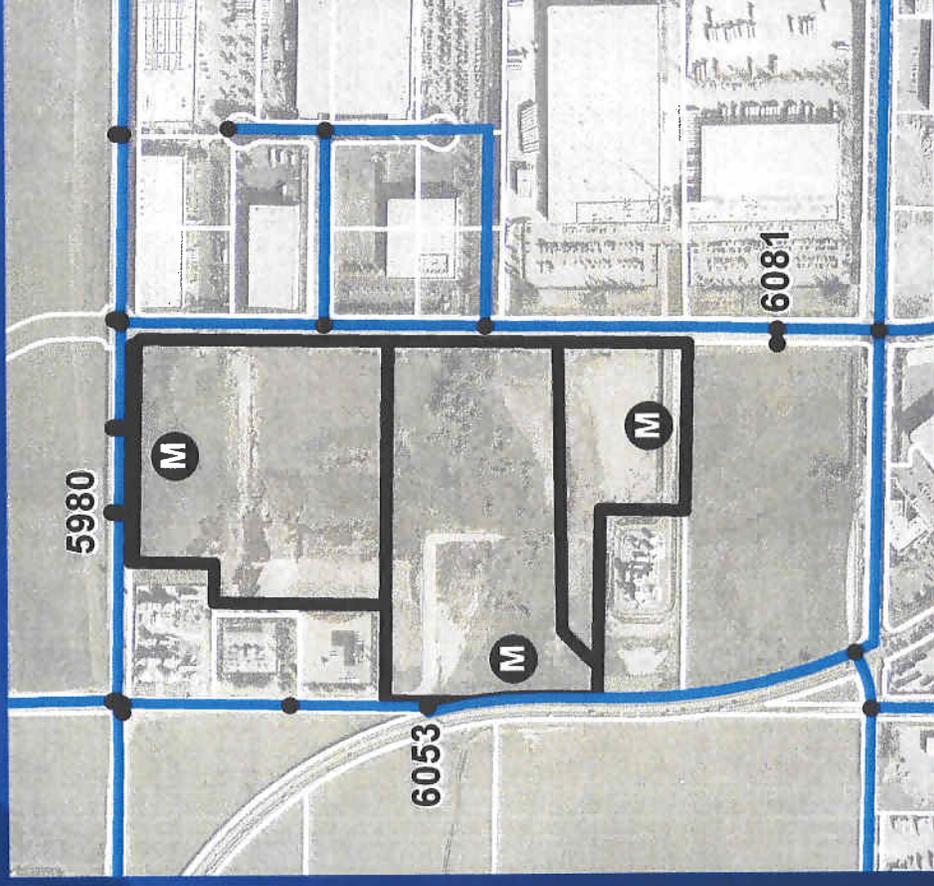


GIS & Land Use Model – Systems Understanding



Building an accurate model

- ▶ Link existing meter data to parcels
- ▶ Validate APNs with meter records
- ▶ Gives OWD an accurate existing database
- ▶ Our current team experience with managing large amounts of data will allow us to efficiently manage this task



Building an integrated tool for the future

PBS



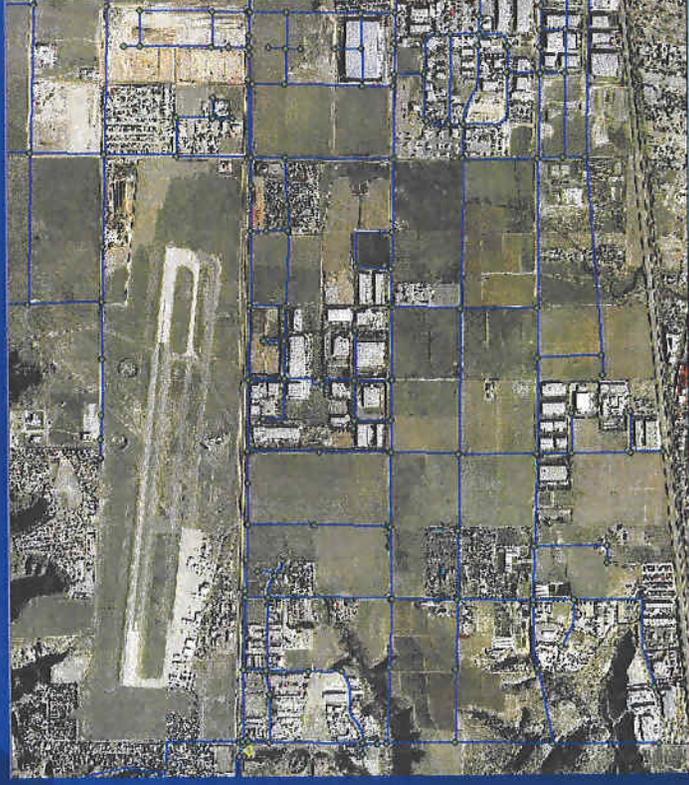
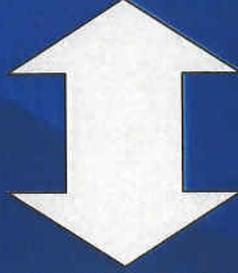
APN	Address	Meter_ID	Land_Use	Area_ac	Population	ADD_gpm	W_Node ID
64613053	9455 Otay Mesa Road	10001	Light Industrial	17.8	1,113	11.0	5980
64613053	9455 Otay Mesa Road	10002	Light Industrial	7.5	469	4.7	6081
64613053	9455 Otay Mesa Road	--	Right-of-Way	18.5	0	0	6053

GIS utilities take us from existing to ultimate conditions

PBSy



GIS Parcel and Land
Use Data



Water Model with
Nodal Tributary Areas

OWD Water Model

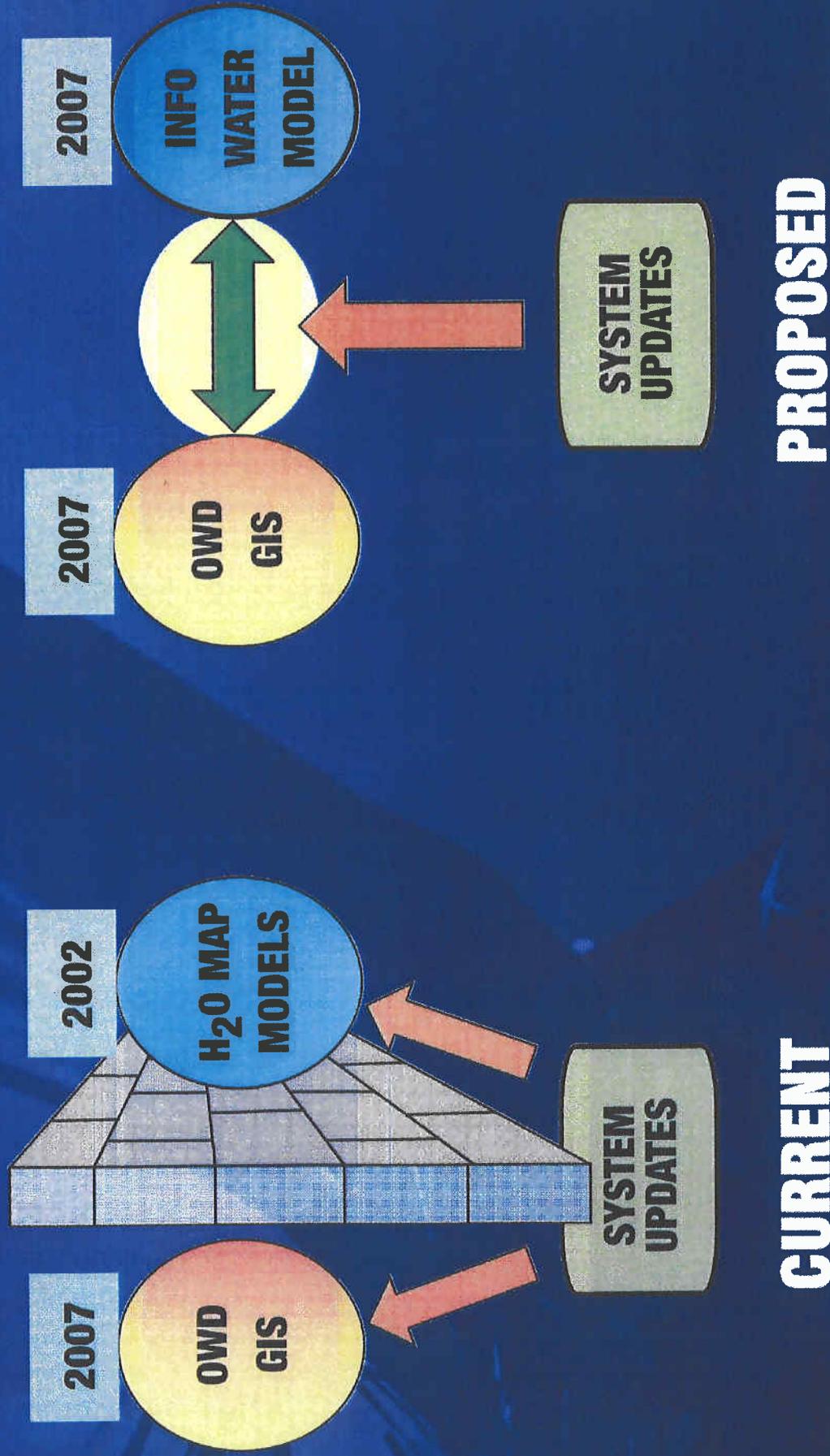


"MWH Soft is pleased to support the District and PBS&J in its upgrade to the InfoWater Model. Both Jenny Bileck and Mark Elliott have been long standing successful users of our software and we look forward to working with them."

– Erick Heath, MWH Soft

Keeping your model up to date will enhance long-term system operation

PBS

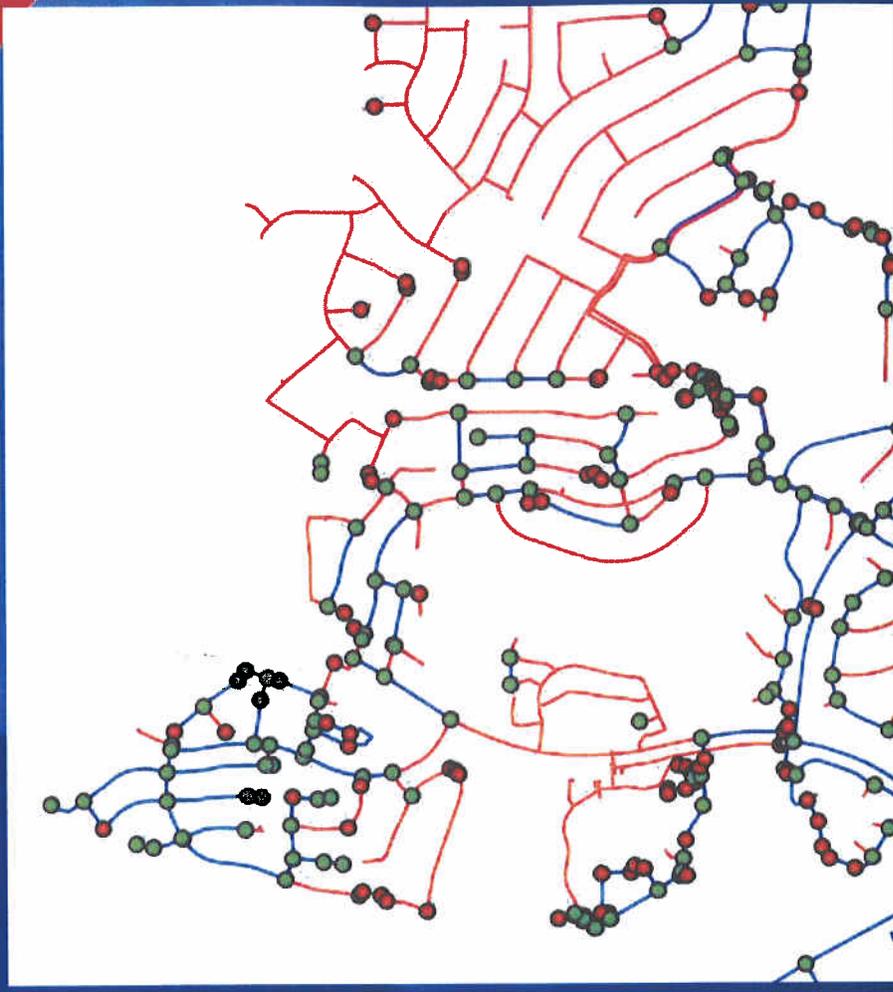


Quality control assures accurate water model

PBSy

GIS Data Review

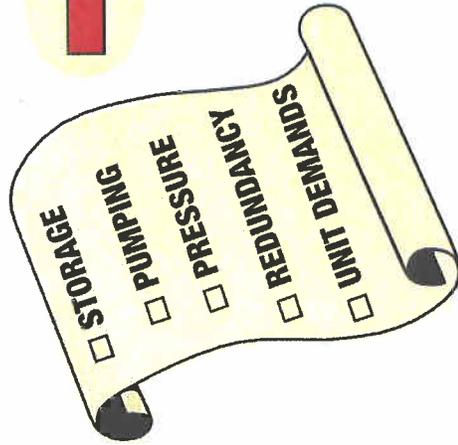
- ▶ Connectivity
- ▶ Populated info
- ▶ Meters linked to APNs



Working closely with the District will produce a cost-effective CIP

PBSJ

OWD DESIGN CRITERIA



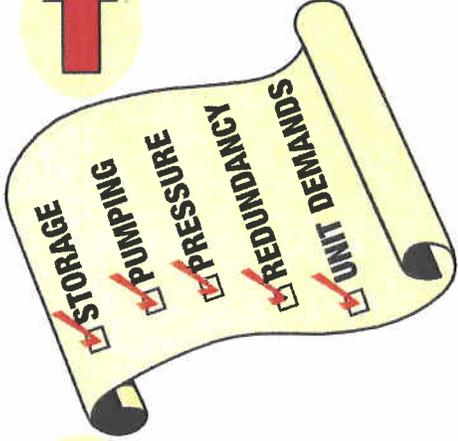
WORKSHOP



- ENGINEERS
- OPERATORS
- MANAGEMENT
- **PBSJ**



2009 UPDATE



Accurate water model requires calibration



- ▶ Properly calibrated model
 - Reliable planning tool
 - Possible reduction in CIP \$
 - Prioritizing project phasing

Field Testing



Model Calibration



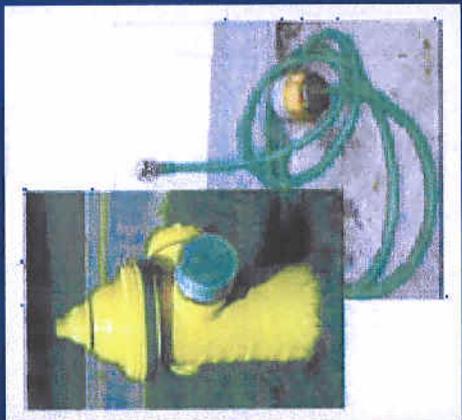
Confidence



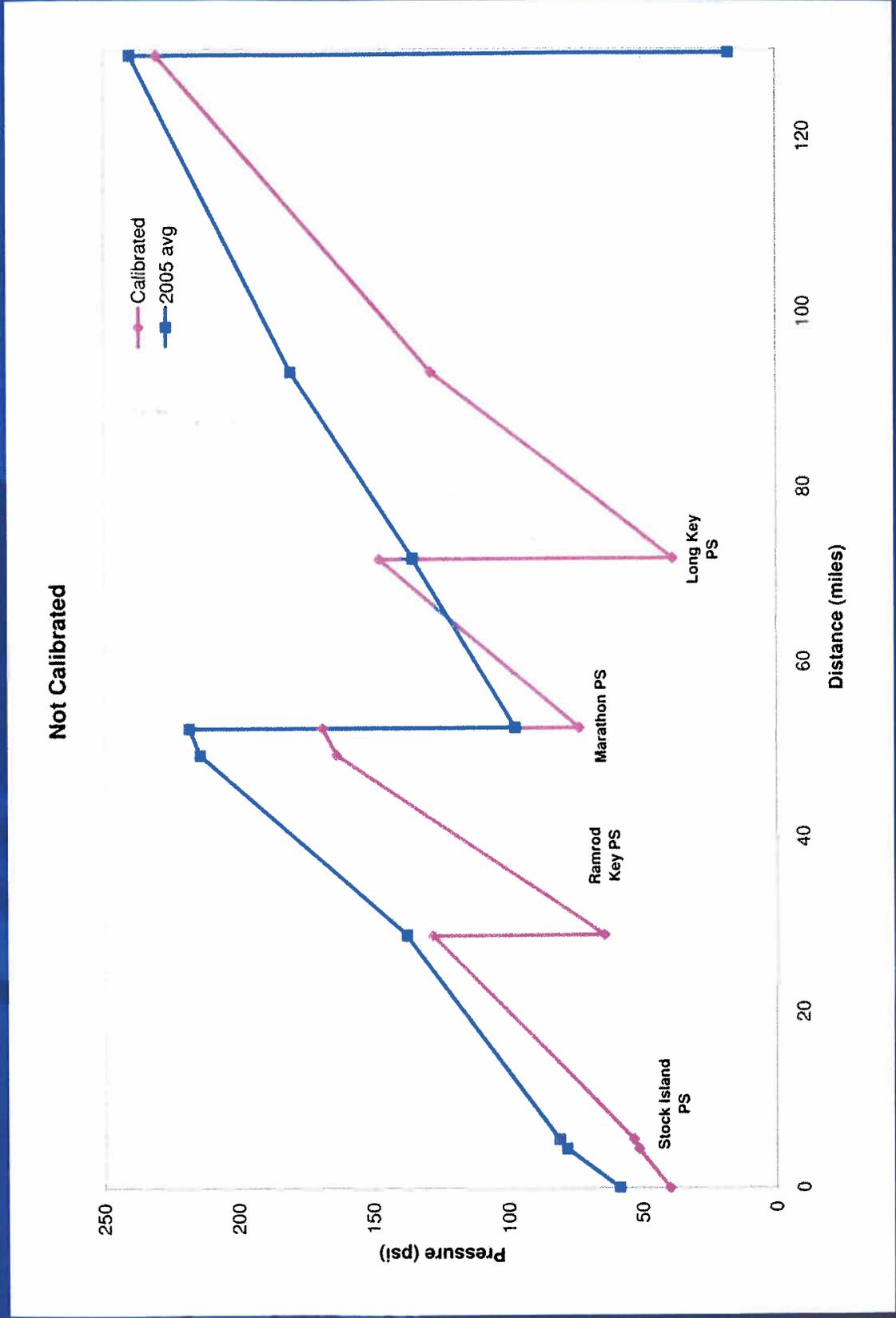
Good Decision Making



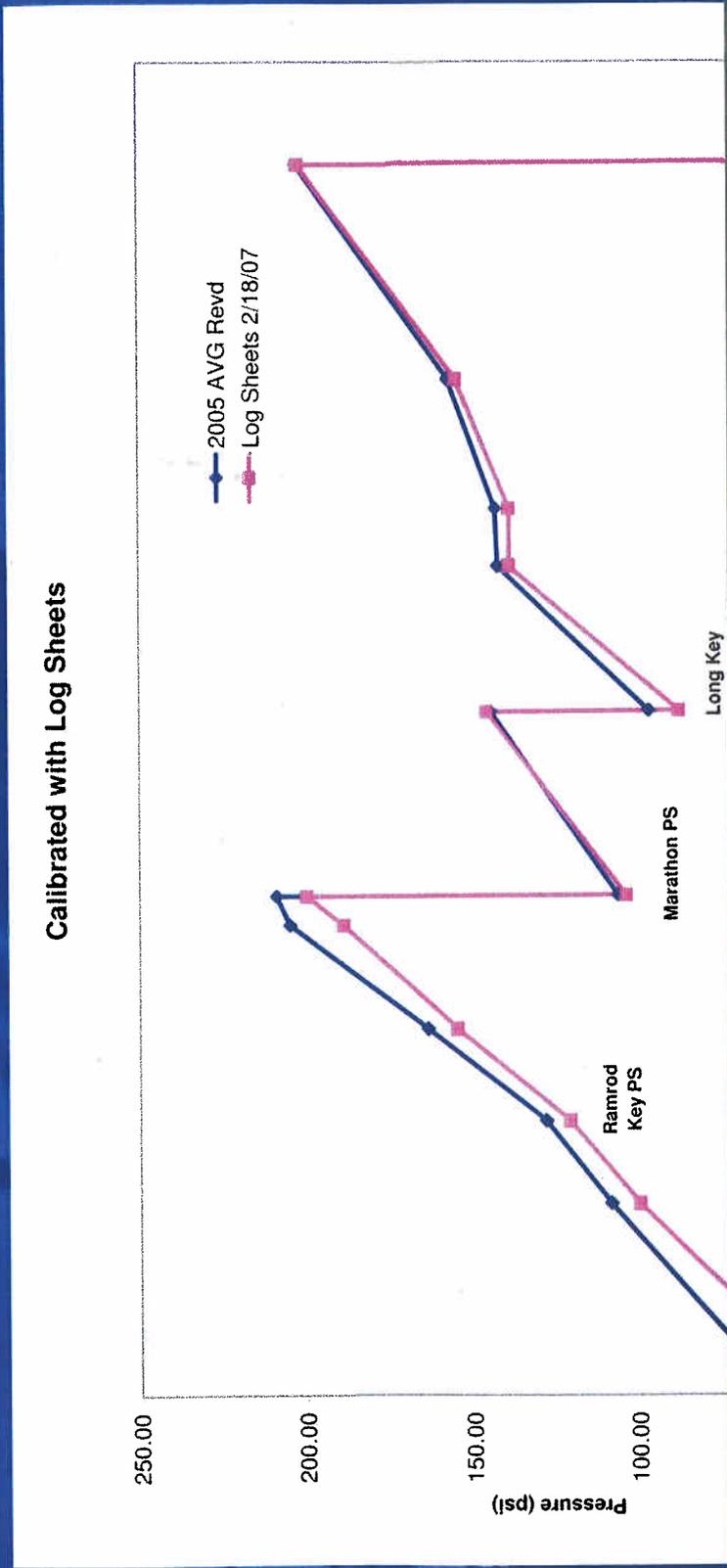
CIP \$'s
Spent Wisely



Example Model Calibration



Example Model Calibration

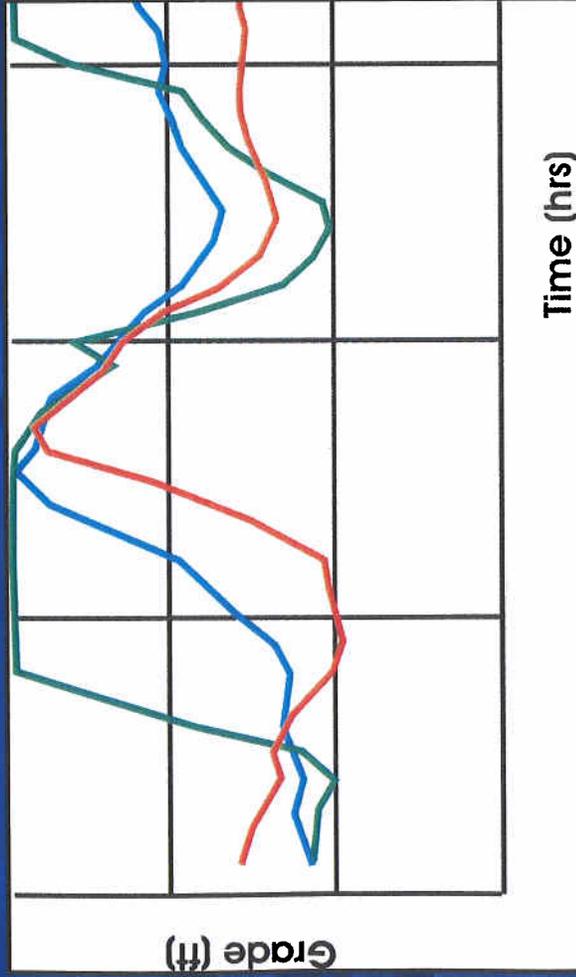


“Congratulations, your abstract entitled ‘The Key to Calibration in the Keys’ has been selected by the Technical Review Committee to be part of the technical program for the 2007 MWH Soft International Geoengeering Conference.”

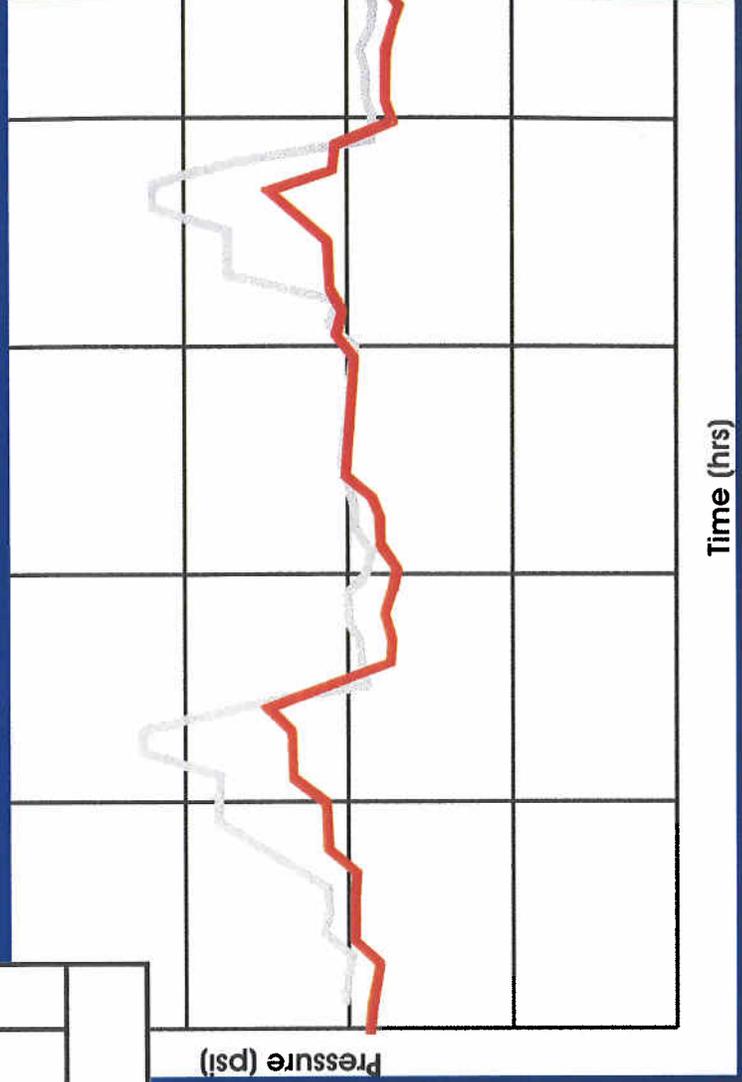
– MWH Soft

OWD Hillsdale Water System Analysis

PBSA



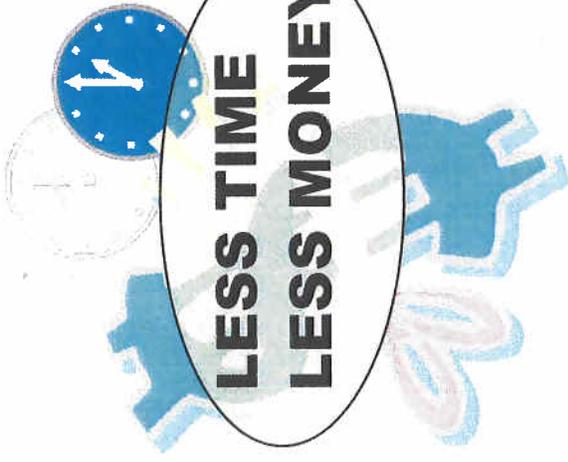
- ▶ Reservoir cycling improved
- ▶ Pressure spikes reduced



Integrating PBS&J's local development experience saves time and money

PBS&J

SAMPS



**LESS TIME
LESS MONEY**

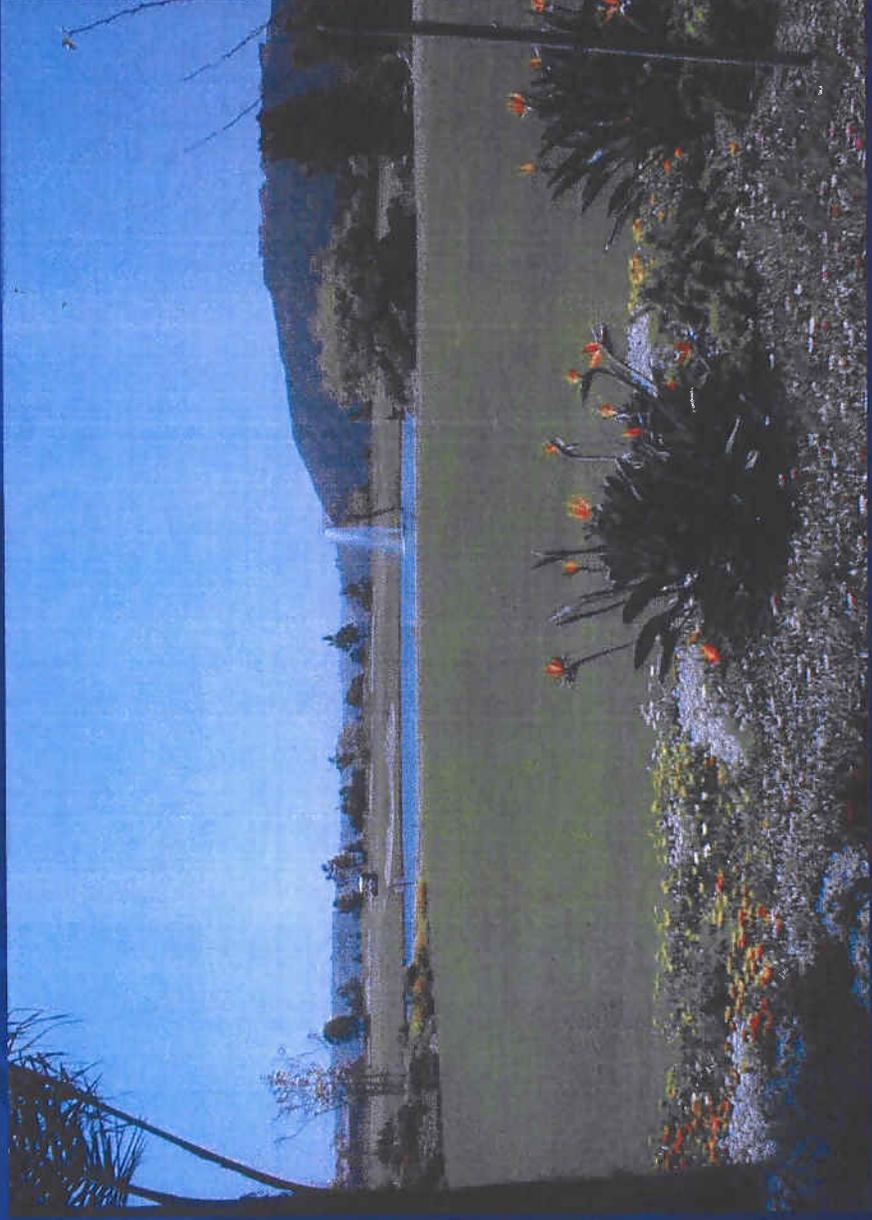
Water Model Training = Knowledge Transfer

PBS

- ▶ Source Data
- ▶ Chronology of how models were built
- ▶ Explanation of land use database
- ▶ Explanation of scenarios
- ▶ Explanation of controls
- ▶ Step-by-step process on updating
- ▶ On-call local modeling assistance

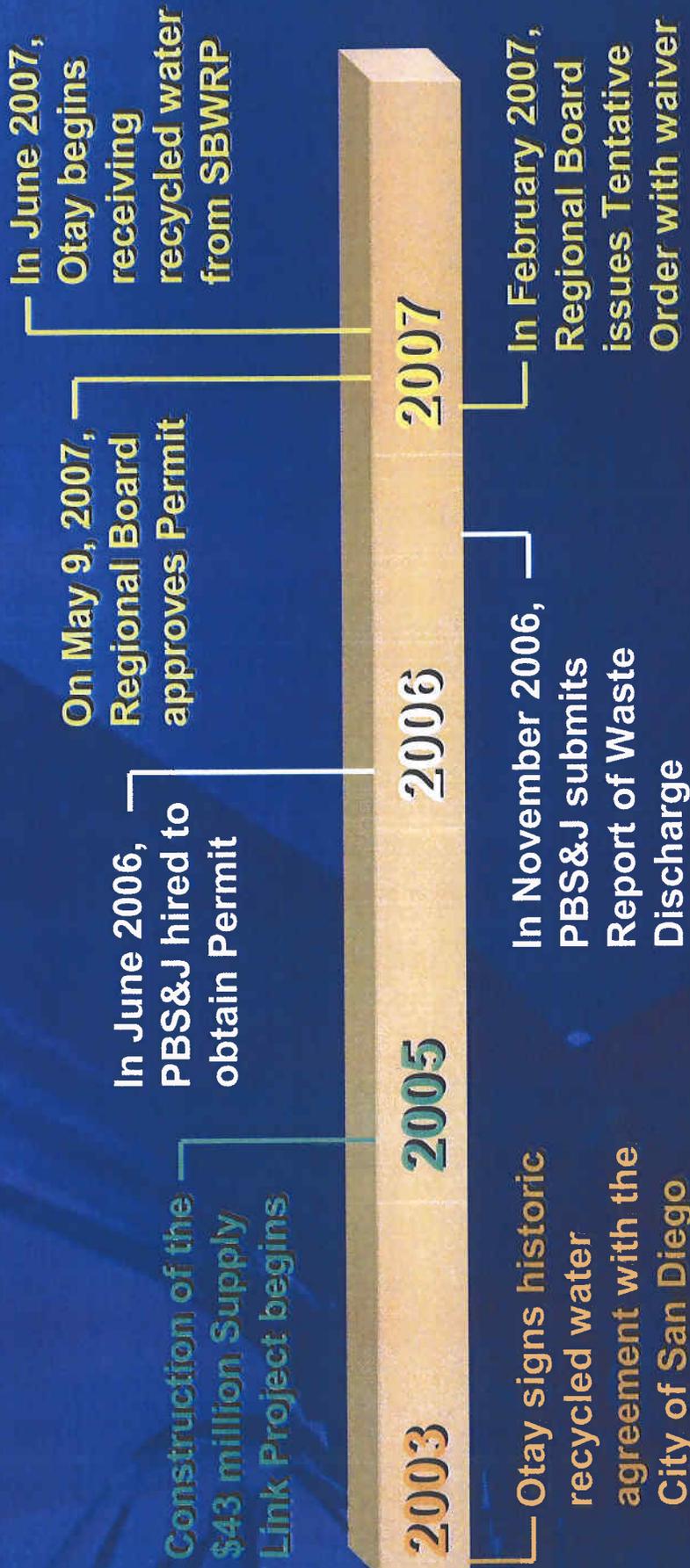


Recycled Water Master Plan Update



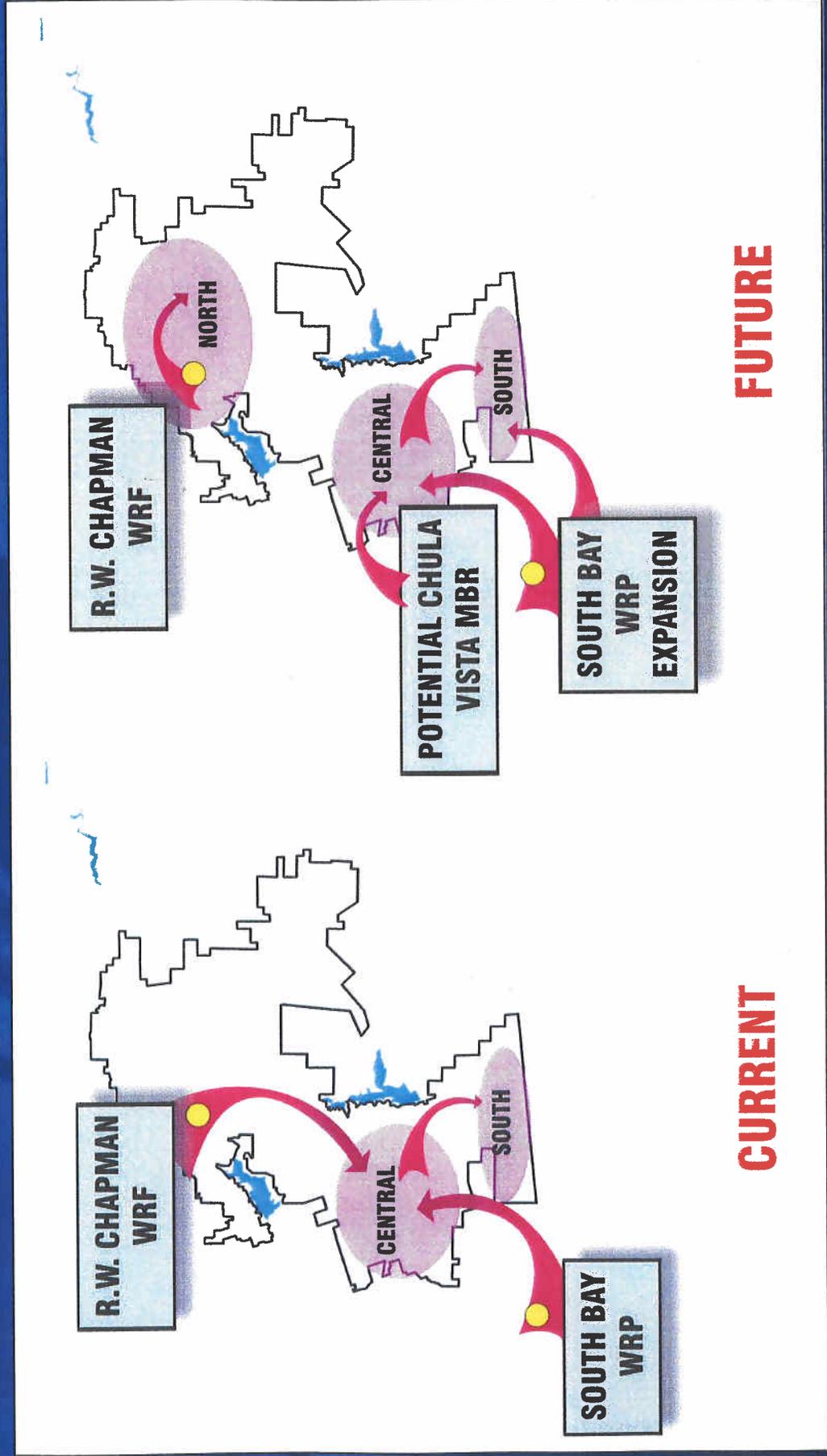
PBS&J's experience in obtaining OWD's Master Reclamation Permit brings value

PBS&J



Opportunities for expanding the recycled water system

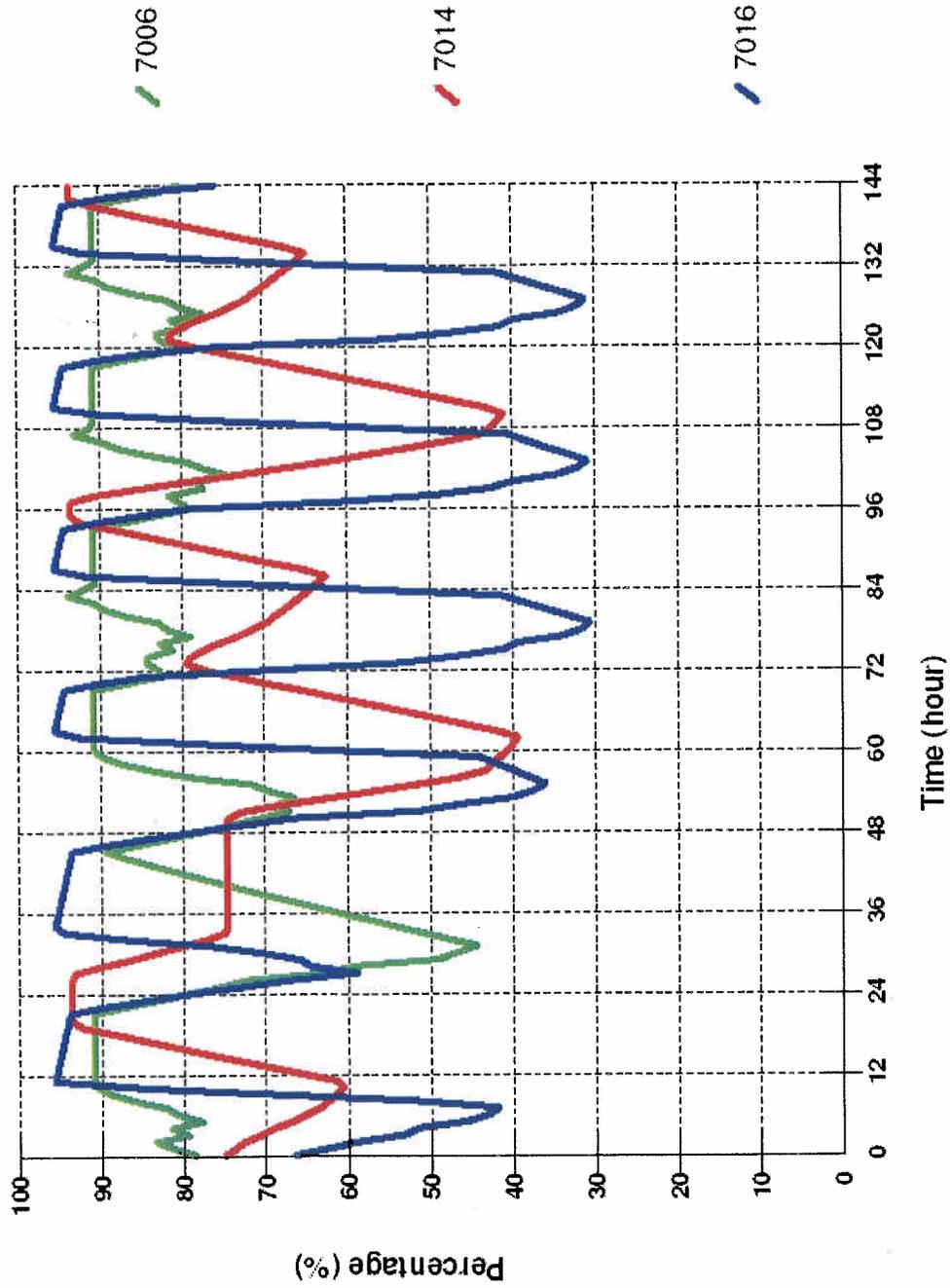
PBSJ



Recycled water model analysis for Otay Mesa Community Plan Update

PBSJ

Tank Group Graphs



Program EIR



Kim Howlett's 30+ years of San Diego environmental experience keeps you "out of hot water"



- ▶ 1996 OWD Master EIR
- ▶ UCSD Program EIR
- ▶ San Diego Zoo Expansion Program EIR
- ▶ Otay Mesa Trunk Sewer Program EIR



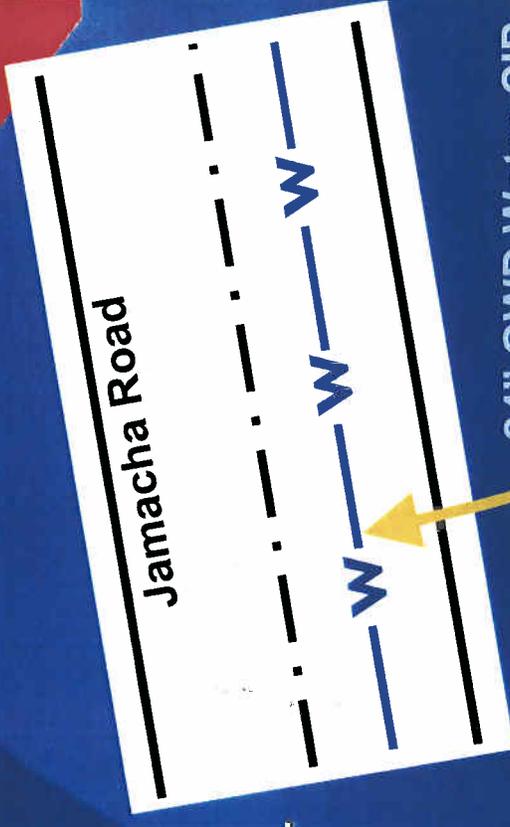
"Kim Howlett was brilliant and always there to assist whenever needed."

– Cathy Cibit, Senior Planner at the City of San Diego, regarding the San Diego Zoo Expansion EIR

Our approach to the PEIR assures timely CIP project approvals

PBSJ

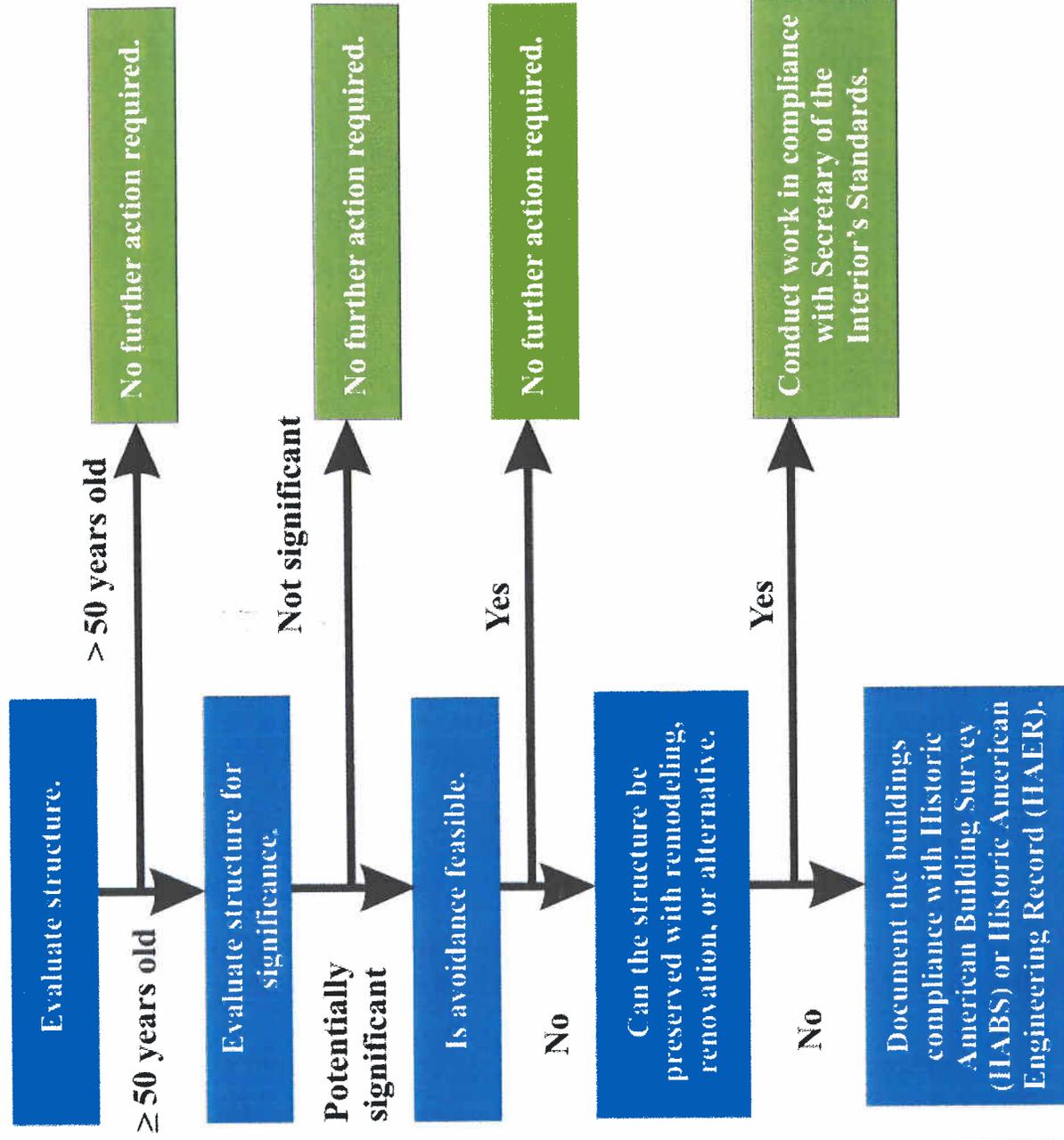
- ▶ **Statutory Exemptions**
 - No CEQA review
 - CEQA Guidelines Section 1582 (k) – new pipeline less than one mile in length
- ▶ **Category Exemptions**
 - No CEQA review
 - CEQA Guidelines Sections 15301 (existing facilities) and 15302 (replacement or reconstruction)
- ▶ **Step-wise Decision Tree Mitigation Measures**
 - **Biology**
 - ◆ San Miguel Habitat Management Area
 - **Archaeology**



- ▶ Our step-wise mitigation measures provide OWD with a “cook book” to address environmental impacts

MITIGATION MEASURE DECISION TREE EXAMPLE

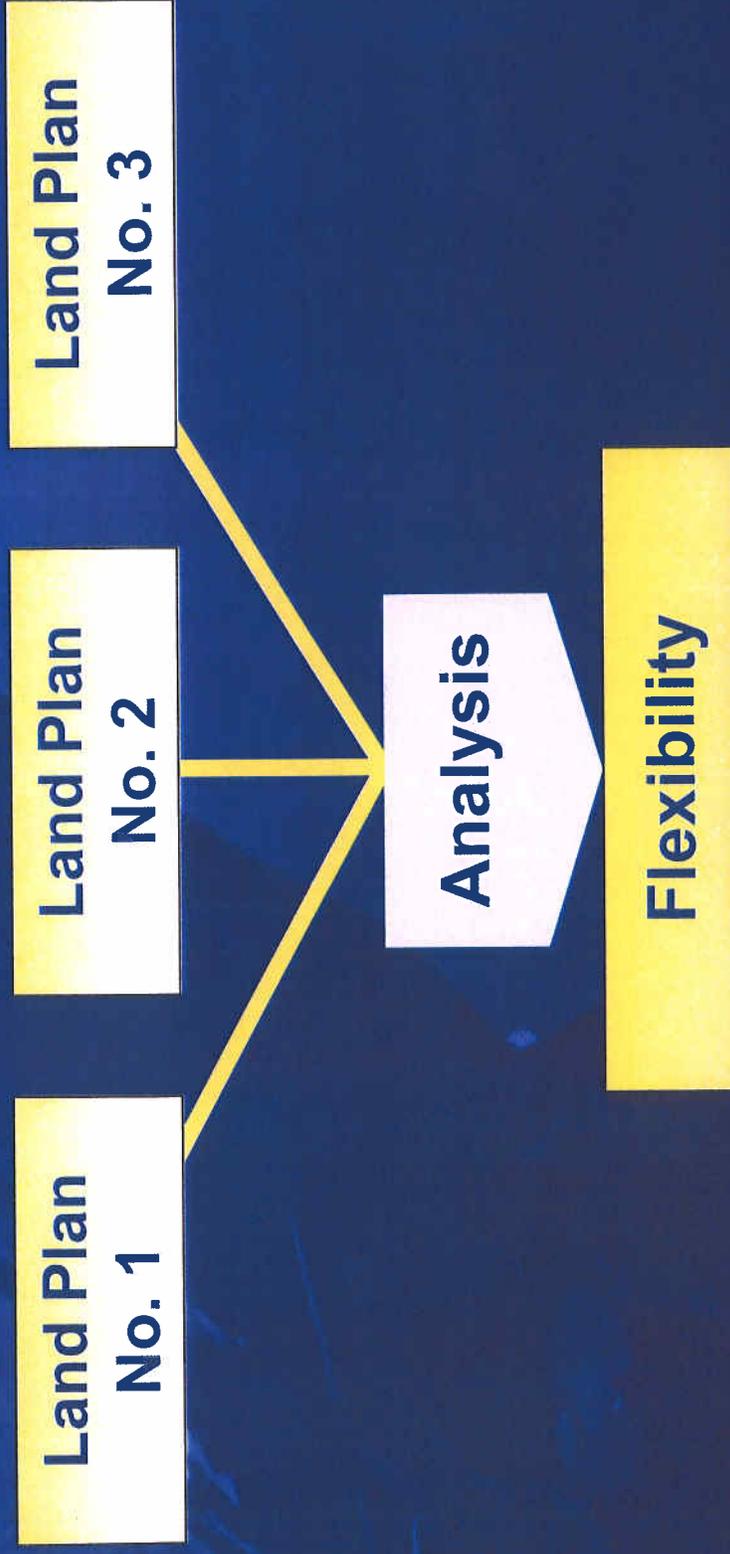
Issue: Historic Resources



Our assessment of project alternatives will provide OWD with system flexibility

PBSJ

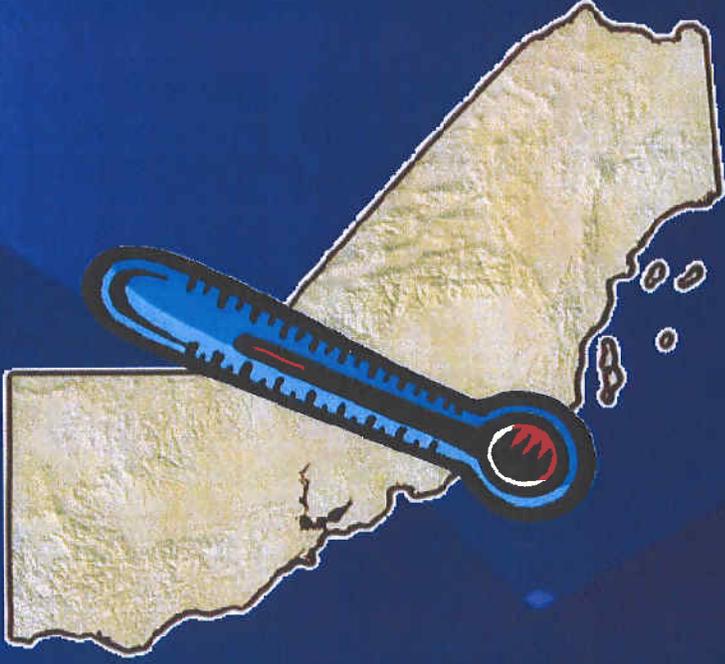
Otay Mesa Community Plan



Our award-winning CEQA team will assure new issues are anticipated and addressed

PBS

▶ **Global warming (AB 32)**



Selecting PBS&J for your WRMP and PEIR wins OWD Board and GM approval

PBS&J

- ✓ Creativity and insight to project issues
- ✓ Understanding of scope of work, proposed project schedule, and company resources
- ✓ Strength of Project Manager
- ✓ Presentation and communication skills
- ✓ Quality of responses to questions from interview panel