

# Agenda Report

February 27, 2012

**TO:** Honorable Mayor and City Council

**FROM:** Water and Power Department

**SUBJECT:** **AUTHORIZATION TO EXTEND CONTRACT NO. 20,076 WITH ARB, INC. FOR PROVIDING FIELD PERSONNEL SERVICES AND AMEND CONTRACT NO. 19,858 WITH G & E ENGINEERING SYSTEMS INC. FOR PROVIDING CIVIL AND STRUCTURAL ENGINEERING SERVICES FOR VARIOUS PROJECTS AT THE BROADWAY, GLENARM AND AZUSA POWER PLANTS AS WELL AS AMEND CONTRACT NO. 20,119 WITH WORLEY PARSONS INC. TO PROVIDE AIR QUALITY ANALYSIS AND PERMITTING FOR THE GLENARM REPOWERING PROJECT.**

## **RECOMMENDATION:**

It is recommended that the City Council:

1. Find that the extension of the contract with ARB, Inc. and amendment of contract with G & E Engineering Systems, Inc. are exempt from the California Environmental Quality Act ("CEQA") in accordance with Title 14, Chapter 3, section 15301, Class 1, Existing Facilities; and Section 15302, Class 2, Replacement or Reconstruction;
2. Find that amendment of contract with Worley Parsons is exempt from CEQA pursuant to State CEQA Guidelines Section 15061;
3. Authorize the City Manager to extend Contract No. 20,076 with ARB, Inc. to exercise the first contract extension for two years or an amount not-to exceed \$200,000, whichever occurs first;
4. Authorize the City Manager to amend Contract No. 19,858 with G & E Engineering Systems (G&E) to extend the contract duration for an additional year and increase the contract not-to-exceed amount from \$300,000 to \$360,000;
5. Authorize the Assistant City Manager to amend Contract No. 20,119-1 with Worley Parsons to increase the contract not-to-exceed amount from \$317,000 to \$330,500, an increase of \$13,500, for the additional modeling and analysis required by the South Coast Air Quality Management District (SCAQMD) and United States Environmental Protection Agency (EPA) for the Glenarm Repowering Project; and

6. Find that competitive bidding is not required pursuant to City Charter Section 1002 (F) Contracts for Professional or Unique Services.

### **EXECUTIVE SUMMARY**

Pasadena Water & Power (PWP) is currently implementing several capital improvement projects in the power plant to meet regulatory compliance; keep the power generating units operating safely, reliably, & efficiently; and satisfy the recommendations in PWP's 2009 Integrated Resource Plan (IRP). Due to the volume of capital project work, PWP continues to utilize its existing in-house staff and labor, field personnel services contract, and engineering services contract to meet the established goals and schedules for the various projects. These contracts need to be amended as described below:

- Amend contract with ARB Inc. to provide field service personnel for the various capital improvement projects. The contract will be amended to exercise the first contract extension for two years or an amount not-to-exceed \$200,000, whichever occurs first. Obtaining approval to exercise the first contract extension period will support the completion of the Unit B3 Major Inspection, which is currently in progress, as well as other future CIP projects on an as needed basis.
- Amend the contract with G & E to provide civil and structural engineering services for the implementation of various capital improvement projects. The existing contract will expire on March 3, 2012 and the request is to extend the contract for one year as well as to increase the contract not-to-exceed amount from \$300,000 to \$360,000. This amendment will allow for the completion of the construction inspection, and design certification for the Azusa Hydro seismic retrofit project.
- Amend the existing contract with Worley Parsons to provide air quality analysis and permitting for the repowering project. The extra work included in the proposed contract amendment is to perform the additional air dispersion modeling to assess the environmental impact of the Glenarm Repowering Project (Repowering Project). The cost for this work is \$13,500.

### **BACKGROUND:**

To ensure compliance with regulatory requirements; maintain reliability, safety, and efficiency of power generating units; and satisfy recommendation in the IRP for the Repowering Project, PWP is currently implementing various capital improvement projects in the plant. PWP continues to utilize its existing in-house staff and labor, contract field personnel services, and contract engineering services to meet the established goals and schedules of each project. Currently, there are three existing

contracts that need to be extended and amended. These contracts are described in details below.

#### Contract for Field Service Personnel

On October 5, 2009, City Council authorized staff to contract with ARB, Inc. to provide field service personnel for the various capital improvement projects in the power plant. The contract was approved and signed for three years or after expending the amount of \$600,000, whichever occurs first. The contract has two two-year extensions subject to the approval of the City Council. Each contract extension is for two years or after expending the not-to-exceed amount of \$200,000 per contract extension, whichever occurs first.

Since the date of the execution of the contract, ARB, Inc. assisted PWP in several capital projects at the Broadway, Glenarm and Azusa Plants in a timely and satisfactory manner. Presently, the contractor's crew is providing field support to the on-going Unit B-3 Major Inspection and Repair. The originally planned duration of Unit B-3 Major Inspection and Repair had to be extended due delays caused by the bad weather and unexpected difficulties in disassembly of stuck parts not being taken apart for 10 years, which is twice as long as a normal overhaul cycle. The not-to-exceed amount of \$600,000 in the contract will be spent before the end of this project. Therefore, in order to support the completion of the Unit B3 Major Inspection without interruption as well as other future CIP projects on an as needed basis, staff recommends entering into the first two-year contract extension period for an amount not to exceed \$200,000.

#### Contract for Civil and Structural Engineering Services

On February 23, 2009, the City Council authorized staff to contract with G & E Engineering Systems Inc. (G&E) to provide civil and structural engineering services for the implementation of various capital improvement projects in the Broadway, Glenarm, and Azusa power plants. The contract was signed and approved for three years or after using the not-to-exceed amount of \$300,000, whichever occurs first. Staff has determined that this amount will be spent when the contract expires on March 3, 2012.

There is currently one active task (engineering design, specification preparation, construction inspection, and engineering certification of the Azusa Hydro seismic retrofit) that is expected to go beyond the current expiration date of the G&E contract. To date, engineering design has been completed and the specification preparation is in progress and scheduled to be completed on March 3, 2012. Construction, which is not a part of this contract, is scheduled to start next fiscal year. In the absence of any action to amend the current contract, construction inspection and certification will not be performed and re-assigning these tasks to a new contractor after contract expiration is not recommended. To maintain single consultant liability for the engineering work of the project, it is prudent to have G&E perform construction inspection and certification to ensure that the construction project was performed in accordance with their design. The Federal Energy Regulatory Commission (FERC), the licensing agency for the Azusa

Hydro plant, requires PWP to submit this certification to their office upon completion of the project. The estimated amount for this work is \$42,000. Therefore, staff recommends to extend the contract from March 3, 2012 to March 3, 2013 and to increase the contract amount from \$300,000 to \$360,000 in order for the seismic retrofit work to be completed on time and with FERC certification requirement. The \$60,000 increase includes \$18,000 contingency for unforeseen services required in case the construction scope of work undergoes any change orders.

|                            |           |
|----------------------------|-----------|
| Base Contract              | \$300,000 |
| Additional Cost            | \$42,000  |
| Contingency Allowance (5%) | \$18,000  |
| Total Not-To-Exceed Amount | \$360,000 |

#### Contract for Air Quality Analysis and Permitting

On December 1, 2009, the City Council authorized staff to contract with Worley Parsons for the air quality and permitting services for the Repowering Project for \$255,000. On July 11, 2011, the City Council authorized a contract amendment and increased the amount from \$255,000 to \$317,000 to perform additional work as a result of the changes in the regulation by the EPA and SCAQMD.

The extra work included in the proposed contract amendment is to perform the additional air dispersion modeling to assess the environmental impact of the Glenarm Repowering project. This air dispersion modeling will be submitted to SCAQMD as part of the permit application. The cost for this work is \$13,500. The original contingency of \$20,000 was expended when additional work was performed to comply with the new regulations of the EPA and SCAQMD on greenhouse gas compliance. Increasing the amount of the existing contract rather than going to bid for the additional work will expedite completion of the Repowering project and will be most cost effective since Worley Parsons has already collected the technical information for the study.

The proposed contract amendment will increase the not-to-exceed amount as follows:

|                            |           |
|----------------------------|-----------|
| Base Contract              | \$235,000 |
| Contingency Allowance (7%) | \$ 20,000 |
| Amendment #1 to Contract   | \$ 62,000 |
| Additional Cost            | \$ 13,500 |
| Total Not To Exceed Amount | \$330,500 |

#### COUNCIL POLICY CONSIDERATION

This contract extension supports the City Council Strategic Goal to improve, maintain, and enhance public facilities and infrastructure. It also supports the Public Facilities Element of the General Plan by maintaining public facilities to enhance the quality of life of the community.

**ENVIRONMENTAL ANALYSIS:**

Services provided under the proposed contract extension for field services and contract amendment for civil and structural engineering services have been determined to be categorically exempt in accordance with Title 14, Chapter 3, Section 15301, Class 1, Existing Facilities and Section 2, Class 2, Replacement and Reconstruction of the California Environmental Quality Act (CEQA). Class 1 allows for the maintenance, repair, minor alteration etc. of existing facilities, including publically owned utilities that involves negligible or no expansion of use. Class 2 allows for the replacement and reconstruction of existing facilities and structures, including utility systems where the replacement structure/facility will have substantially the same purpose and capacity. There will be no expansion of use or capacity as a result of the required services.

Services provided under the contract amendment for air quality analysis and permitting are required to prepare for the Repowering Project. This contract amendment does not commit the City of Pasadena to a definitive course of action regarding the Repowering Project, and no construction activities will be undertaken pursuant to this contract amendment. Accordingly, this contract amendment is exempt from the California Environmental Quality Act pursuant to State CEQA Guidelines Section 15061(b)(3); the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

**FISCAL IMPACT:**

The cost of the field services personnel contract extension will be \$200,000. Funding for this action will be addressed by the utilization of the existing budgeted appropriations in the following accounts: CIP 3182 for GT-1 & GT-2 Renewals and Repairs (25%), CIP 3180 for Power Production Facility Improvement (20%), CIP 3158 for Power Facility Water Treatment and Disposal (5%), CIP 3179 for Azusa Hydro Renewals and Replacements (15%), CIP 3148 for B-3 Renewals and Replacements (30%), CIP 3186 for GT-3 & GT-4 Renewals, Replacements and Improvements (5%). It is anticipated that \$70,000 will be spent during the current fiscal year 2012. The remainder of the cost will be spent over the next two fiscal years.

The cost for the civil and structural engineering services contract amendment will be \$60,000. Funding for this project will be addressed by utilization of the existing budgeted appropriations in account CIP 3179 for Azusa Hydro Renewals and Replacements. It is anticipated that \$60,000 will be spent during the next fiscal year 2013.

The cost of the air quality analysis and permitting contract will be \$13,500. Funding for this action will be addressed by utilization of existing budgeted appropriations in account

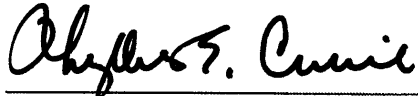
CIP 3194 – Local Generation Repowering Project Phase II. It is anticipated that \$13,500 will be spent during the current fiscal year 2012.

The following table presents a summary of the total fiscal impact:

|   |                  |
|---|------------------|
| <b>Field Service Personnel:</b>                     |                  |
| Contract Extension Amount                           | \$200,000        |
| <b>Civil &amp; Structural Engineering Services:</b> |                  |
| Contract Amendment Amount                           | \$60,000         |
| <b>Air Quality Analysis and Permitting</b>          |                  |
| Contract Amendment Amount                           | \$13,500         |
| <b>Total Fiscal Impact</b>                          | <b>\$273,500</b> |

There are no other anticipated impacts to other operational programs or capital projects as a result of this action.

Respectfully submitted,



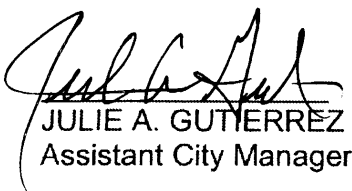
PHYLLIS E. CURRIE  
General Manager  
Water and Power Department

Prepared by:



Wes Stengel  
Associate Engineer  
Power Supply Business Unit

Approved by:



JULIE A. GUTIERREZ  
Assistant City Manager

**Disclosure Pursuant to the  
City of Pasadena Taxpayer Protection Amendment  
Pasadena City Charter, Article XVII**

Contractor/Organization hereby discloses its trustees, directors, partners, officers, and those with more than 10% equity, participation, or revenue interest in Contractor/Organization, as follows:

*(If printing, please print legibly. Use additional sheets as necessary.)*

**1. Contractor/Organization Name:**  
S+E ENGINEERING SYSTEMS INC

**2. Type of Entity:**  
 non-government     nonprofit 501(c)(3), (4), or (6)

**3. Name(s) of trustees, directors, partners, officers of Contractor/Organization:**

|               |
|---------------|
| GLORIA GEE    |
| JOHN EIDINGER |
|               |
|               |
|               |
|               |
|               |
|               |
|               |
|               |

**4. Names of those with more than a 10% equity, participation or revenue interest in Contractor/Organization:**

|            |
|------------|
| GLORIA GEE |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |
|            |

Prepared by: JOHN EIDINGER  
Title: PRESIDENT  
Phone: 1-510-595-9453  
Date: FEB 2 2012

**Disclosure Pursuant to the  
City of Pasadena Taxpayer Protection Amendment  
Pasadena City Charter, Article XVII**

Contractor/Organization hereby discloses its trustees, directors, partners, officers, and those with more than 10% equity, participation, or revenue interest in Contractor/Organization, as follows:


*(If printing, please print legibly. Use additional sheets as necessary.)*

**1. Contractor/Organization Name: WorleyParsons Group Inc.**

**2. Type of Entity:**  
 non-government     nonprofit 501(c)(3), (4), or (6)

**3. Name(s) of trustees, directors, partners, officers of Contractor/Organization:**  
See attached

**4. Names of those with more than a 10% equity, participation or revenue interest in Contractor/Organization:**  
None

Prepared by: 

Title: Vice President Power Business Unit

Phone: 916-817-3925

Date: January 30, 2012



**WORLEYPARSONS GROUP INC.****FEIN: 94-2624994****REGISTER OF CURRENT OFFICERS AT 31 JANUARY 2012**

Quorum: 1

|                              |   |
|------------------------------|---|
| <b>Name</b>                  | <b>ANDRAWIS, HELMY</b>  |
| <b>Address</b>               | 181 WEST HUNTINGTON, SUITE 110, MONROVIA, CA 91016, UNITED STATES |
| <b>Vice President</b>        | Appointed: 15/08/2006   |
| <b>Name</b>                  | <b>ASHTON, R. CHRISTOPHER (CHRIS)</b>                             |
| <b>Address</b>               | 1 ELM STREET, SUITE 400, CONSHOHOCKEN, PA, 19428                  |
| <b>Date of Birth</b>         | <b>Place of Birth</b> UNITED KINGDOM                              |
| <b>Director</b>              | Appointed: 01/01/2010   |
| <b>Senior Vice President</b> | Appointed: 16/08/2006   |
| <b>Name</b>                  | <b>BAILEY, WILLIAM B. (BILL)</b>                                  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Vice President</b>        | Appointed: 01/05/2011   |
| <b>Name</b>                  | <b>BARKER, BRIAN W.</b>   |
| <b>Address</b>               | 10500 RICHMOND AVE, HOUSTON, TEXAS 77042, UNITED STATES           |
| <b>Vice President</b>        | Appointed: 01/12/2008   |
| <b>Name</b>                  | <b>BARNHART, JOHN R.</b>  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Date of Birth</b>         | <b>Place of Birth</b> UNITED STATES                               |
| <b>Vice President</b>        | Appointed: 24/02/1998   |
| <b>Name</b>                  | <b>BASS, JAN</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 11/09/2006   |
| <b>Name</b>                  | <b>BECK, WILLIAM C. (BILL)</b>                                    |
| <b>Address</b>               | 3901 VIA ORO., STE 100, LONG BEACH, CA 90810, UNITED STATES       |
| <b>Vice President</b>        | Appointed: 01/02/1997   |
| <b>Name</b>                  | <b>BEN-MUSA, USAMA A.</b>   |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Vice President</b>        | Appointed: 05/12/2009   |
| <b>Name</b>                  | <b>BERMAN, GARY</b>   |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Vice President</b>        | Appointed: 11/07/2011   |
| <b>Name</b>                  | <b>BINDRA, TEEJAY</b>   |
| <b>Address</b>               | 125 WEST HUNTINGTON DRIVE, ARCADIA, CA, 91007, UNITED STATES      |
| <b>Vice President</b>        | Appointed: 16/03/2004   |
| <b>Name</b>                  | <b>BOON, THOMAS S.</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 11/01/2010   |
| <b>Name</b>                  | <b>BROCK, THOMAS E. (TOM)</b>                                     |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Vice President</b>        | Appointed: 01/10/2007   |
| <b>Name</b>                  | <b>BROWN, STAN</b>  |
| <b>Address</b>               | LEVEL 12, 141 WALKER STREET, NORTH SYDNEY, NSW, 2060              |

**WORLEYPARSONS GROUP INC.****FEIN: 94-2624994****REGISTER OF CURRENT OFFICERS AT 31 JANUARY 2012**

Quorum: 1

|                              |   |
|------------------------------|---|
| <b>Vice President</b>        | Appointed: 01/04/2007   |
| <b>Name</b>                  | <b>BURCHETT, KARL</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 19/10/2006   |
| <b>Name</b>                  | <b>BURFORD, HAZEN E.</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 31/07/2010   |
| <b>Name</b>                  | <b>CARTER, SIMON A.</b>   |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Date of Birth</b>         | <b>Place of Birth</b> SYDNEY, NSW                                 |
| <b>Senior Vice President</b> | Appointed: 15/06/2009   |
| <b>Name</b>                  | <b>CLAPHAM, STEPHEN J.</b>  |
| <b>Address</b>               | KULMANOVA STREET, 48-A, MEDEO VILLAGE, ATYRAU, KAZAKHSTAN         |
| <b>Vice President</b>        | Appointed: 07/02/1980   |
| <b>Name</b>                  | <b>CONDA, RUSSELL A.</b>  |
| <b>Address</b>               | 181 WEST HUNTINGTON, SUITE 110, MONROVIA, CA 91016, UNITED STATES |
| <b>Date of Birth</b>         | <b>Place of Birth</b> UNITED STATES                               |
| <b>Senior Vice President</b> | Appointed: 01/10/2007   |
| <b>Name</b>                  | <b>CZUBA, MATTHEW</b>   |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Vice President</b>        | Appointed: 03/07/2011   |
| <b>Name</b>                  | <b>DAVIS, STEVEN B.</b>   |
| <b>Address</b>               | 2675 MORGANTOWN ROAD, READING, PA, 19607, UNITED STATES           |
| <b>Vice President</b>        | Appointed: 01/07/2005   |
| <b>Name</b>                  | <b>DECOURSEY, PAUL</b>  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Senior Vice President</b> | Appointed: 01/05/2011   |
| <b>Name</b>                  | <b>DELALLO, MICHAEL</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 07/02/1980   |
| <b>Name</b>                  | <b>DONALDSON, ANDREW</b>  |
| <b>Address</b>               | 2675 MORGANTOWN ROAD, READING, PA, 19607, UNITED STATES           |
| <b>Vice President</b>        | Appointed: 21/06/2010   |
| <b>Name</b>                  | <b>DOTEY, CHRIS E.</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 07/02/1980   |
| <b>Name</b>                  | <b>EBERHARDT, DOUG</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 01/11/2008   |
| <b>Name</b>                  | <b>EDWARDES, ROBERT J.</b>  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |

**WORLEYPARSONS GROUP INC.**

FEIN: 94-2624994

**REGISTER OF CURRENT OFFICERS AT 31 JANUARY 2012**

Quorum: 1

|                              |  |                       |                         |
|------------------------------|--|-----------------------|-------------------------|
| <b>Director</b>              | Appointed: 01/01/2010  |                       |                         |
| <b>President</b>             | Appointed: 01/08/2008  |                       |                         |
| <b>Name</b>                  | <b>EVANS, BRIAN</b>  |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Senior Vice President</b> | Appointed: 15/06/2009  |                       |                         |
| <b>Name</b>                  | <b>FINTLAND, ROBERT CHARLES</b>  |                       |                         |
| <b>Address</b>               | 5 WRENN HOUSE, 2 BRASENOSE DR, HARRODS VILLAGE, BARNES, EAST AYRSHIRE, SW138NN |                       |                         |
| <b>Date of Birth</b>         | 28/05/1948   | <b>Place of Birth</b> | UNITED STATES           |
|                              |  | <b>Occupation</b>     | OPERATIONS DIRECTOR     |
| <b>Nationality</b>           | UNITED STATES  |                       |                         |
| <b>Senior Vice President</b> | Appointed: 15/06/2006  |                       |                         |
| <b>Name</b>                  | <b>FISTER, LYNN C.</b>   |                       |                         |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                       |                       |                         |
| <b>Date of Birth</b>         |  | <b>Place of Birth</b> | UNITED STATES           |
| <b>Senior Vice President</b> | Appointed: 15/11/2004  |                       |                         |
| <b>Name</b>                  | <b>GALVIN, DORIS</b>   |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Vice President</b>        | Appointed: 23/07/2007  |                       |                         |
| <b>Name</b>                  | <b>GARCIA, LOUIS</b>   |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Assistant Secretary</b>   | Appointed: 16/04/2003  |                       |                         |
| <b>Name</b>                  | <b>GAY, FRANCIS V. (FRANK)</b>   |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Vice President</b>        | Appointed: 15/10/2009  |                       |                         |
| <b>Name</b>                  | <b>GOFORTH, ED</b>   |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Vice President</b>        | Appointed: 12/05/2006  |                       |                         |
| <b>Name</b>                  | <b>GOLDSMITH, GERALD (JERRY)</b>   |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Vice President</b>        | Appointed: 01/10/2007  |                       |                         |
| <b>Name</b>                  | <b>GRILL, JOHN MICHAEL</b>   |                       |                         |
| <b>Address</b>               | LEVEL 12, 141 WALKER STREET, NORTH SYDNEY, NSW, 2060                           |                       |                         |
| <b>Date of Birth</b>         | 07/12/1945   | <b>Place of Birth</b> | SYDNEY, NSW             |
|                              |  | <b>Occupation</b>     | CHIEF EXECUTIVE OFFICER |
| <b>Nationality</b>           | AUSTRALIAN   |                       |                         |
| <b>Director</b>              | Appointed: 01/12/2005  |                       |                         |
| <b>Name</b>                  | <b>HABIBULLAH, ARIF</b>  |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |
| <b>Vice President</b>        | Appointed: 05/07/2008  |                       |                         |
| <b>Name</b>                  | <b>HAMILTON, DAVID</b>   |                       |                         |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                    |                       |                         |

**WORLEYPARSONS GROUP INC.****FEIN: 94-2624994****REGISTER OF CURRENT OFFICERS AT 31 JANUARY 2012**

Quorum: 1

|                              |   |
|------------------------------|---|
| <b>Vice President</b>        | Appointed: 01/11/2008   |
| <b>Name</b>                  | <b>HAND, KEVIN</b>  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                    |
| <b>Vice President</b>        | Appointed: 18/12/2010   |
| <b>Name</b>                  | <b>HANSEN, ERIC</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                 |
| <b>Vice President</b>        | Appointed: 01/11/2008   |
| <b>Name</b>                  | <b>HART, GERARD J.</b>  |
| <b>Address</b>               | 95 E. EVANGELINE OAKS CIRCLE, THE WOODLANDS, TX, 77384                      |
| <b>Vice President</b>        | Appointed: 30/05/2000   |
| <b>Name</b>                  | <b>HELWIG, LUKE</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                 |
| <b>Vice President</b>        | Appointed: 01/08/2010   |
| <b>Name</b>                  | <b>JONES, RONALD R.</b>   |
| <b>Address</b>               | 27 GREAT WEST ROAD, BRENTFORD, MIDDLESEX TW8 9BW, UNITED KINGDOM            |
| <b>Vice President</b>        | Appointed: 01/02/1997   |
| <b>Name</b>                  | <b>JORDAN, RONALD</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                 |
| <b>Vice President</b>        | Appointed: 20/05/2002   |
| <b>Name</b>                  | <b>JUNCO, MANUEL</b>  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                    |
| <b>Senior Vice President</b> | Appointed: 11/07/2011   |
| <b>Name</b>                  | <b>KALBAN, LAWRENCE S.</b>  |
| <b>Address</b>               | 15600 JFK BLVD., 9TH FL (INTECSEA), HOUSTON, TX 77032, 77032, UNITED STATES |
| <b>Date of Birth</b>         | 12/03/1958  |
| <b>Place of Birth</b>        | UNITED STATES   |
| <b>Nationality</b>           | AMERICAN  |
| <b>Senior Vice President</b> | Appointed: 15/06/2006   |
| <b>Secretary</b>             | Appointed: 03/01/2000   |
| <b>Name</b>                  | <b>KELLEHER, SEAN P.</b>  |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                    |
| <b>Date of Birth</b>         | 27/07/1971  |
| <b>Treasurer</b>             | Appointed: 15/04/2009   |
| <b>Vice President</b>        | Appointed: 15/04/2009   |
| <b>Name</b>                  | <b>KEMPER, RAYMOND CHARLES (CHUCK) III</b>                                  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                 |
| <b>Vice President</b>        | Appointed: 01/07/2007   |
| <b>Name</b>                  | <b>KESSLER, RANDY</b>   |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                    |
| <b>Vice President</b>        | Appointed: 14/03/2011   |
| <b>Name</b>                  | <b>KEY, SCOTT</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                 |

**WORLEYPARSONS GROUP INC.****FEIN: 94-2624994****REGISTER OF CURRENT OFFICERS AT 31 JANUARY 2012**

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|                              |  |                      |
|------------------------------|--|----------------------|
| <b>Vice President</b>        | Appointed: 01/09/2009  |                      |
| <b>Name</b>                  | <b>KING, GARRY</b>   |                      |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                   |                      |
| <b>Vice President</b>        | Appointed: 05/07/2008  |                      |
| <b>Name</b>                  | <b>KNIGHT, RUSSELL W.</b>  |                      |
| <b>Address</b>               | ONE FLUOR DANIEL DRIVE, SUGAR LAND, TX, 77046                              |                      |
| <b>Assistant Secretary</b>   | Appointed: 10/05/1996  |                      |
| <b>Name</b>                  | <b>KNOWLTON, JAMES J.</b>  |                      |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                |                      |
| <b>Vice President</b>        | Appointed: 20/05/2002  |                      |
| <b>Name</b>                  | <b>LEAVER, DAVID E.W.</b>  |                      |
| <b>Address</b>               | 601 WILLIAMS BLVD., SUITE 3A (POLESTAR), RICHLAND, WA 99354, UNITED STATES |                      |
| <b>Vice President</b>        | Appointed: 01/11/2008  |                      |
| <b>Name</b>                  | <b>LEITKO, SCOTT</b>   |                      |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                |                      |
| <b>Vice President</b>        | Appointed: 24/05/2010  |                      |
| <b>Name</b>                  | <b>LIPSCOMB, ROBERT S.</b>   |                      |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                   |                      |
| <b>Date of Birth</b>         | <b>Place of Birth</b>  | <b>UNITED STATES</b> |
| <b>Vice President</b>        | Appointed: 01/01/1996  |                      |
| <b>Name</b>                  | <b>MATTESON, ANDREW</b>  |                      |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                |                      |
| <b>Vice President</b>        | Appointed: 17/01/2011  |                      |
| <b>Name</b>                  | <b>MCCLOUD, CAROL L.</b>   |                      |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                   |                      |
| <b>Assistant Secretary</b>   | Appointed: 02/05/2011  |                      |
| <b>Name</b>                  | <b>MCGINNIS, DAN</b>   |                      |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                   |                      |
| <b>Senior Vice President</b> | Appointed: 30/08/2011  |                      |
| <b>Name</b>                  | <b>MONTGOMERY, C. WAYNE</b>  |                      |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES                   |                      |
| <b>Vice President</b>        | Appointed: 06/07/2010  |                      |
| <b>Name</b>                  | <b>MOORE, ELIZABETH</b>  |                      |
| <b>Address</b>               | 181 WEST HUNTINGTON, SUITE 110, MONROVIA, CA 91016, UNITED STATES          |                      |
| <b>Vice President</b>        | Appointed: 12/04/2010  |                      |
| <b>Name</b>                  | <b>MURPHY, SEAN</b>  |                      |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                |                      |
| <b>Vice President</b>        | Appointed: 10/05/2010  |                      |
| <b>Name</b>                  | <b>NYLANDER, CURTIS</b>  |                      |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                                |                      |

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|                              |   |
|------------------------------|---|
| <b>Vice President</b>        | Appointed: 01/04/2008                                       |
| <b>Name</b>                  | <b>OLSON, WILLIAM BILL</b>                                  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                 |
| <b>Vice President</b>        | Appointed: 01/11/2008                                       |
| <b>Name</b>                  | <b>OZKIRBAS, EROL</b>                                       |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                 |
| <b>Vice President</b>        | Appointed: 02/01/2010                                       |
| <b>Name</b>                  | <b>PARIS, WILLIAM C.</b>                                    |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                 |
| <b>Vice President</b>        | Appointed: 16/09/2009                                       |
| <b>Name</b>                  | <b>PARKER, CHRISTOPHER L.</b>                               |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES    |
| <b>Senior Vice President</b> | Appointed: 01/05/2005                                       |
| <b>Name</b>                  | <b>PARKES, TREVOR J.</b>                                    |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES    |
| <b>Assistant Treasurer</b>   | Appointed: 01/08/2010                                       |
| <b>Assistant Secretary</b>   | Appointed: 01/08/2010                                       |
| <b>Name</b>                  | <b>PISULA, DENNIS E.</b>                                    |
| <b>Address</b>               | POST OFFICE BOX 4671, ABU DHABI, UNITED ARAB EMIRATES       |
| <b>Vice President</b>        | Appointed: 18/06/2004                                       |
| <b>Name</b>                  | <b>POWERS, JAMES J. III</b>                                 |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES    |
| <b>Vice President</b>        | Appointed: 11/11/2002                                       |
| <b>Name</b>                  | <b>PURVIS, JAMES A.</b>                                     |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                 |
| <b>Vice President</b>        | Appointed: 15/04/2009                                       |
| <b>Name</b>                  | <b>RICKERT, KEVIN S.</b>                                    |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES    |
| <b>Vice President</b>        | Appointed: 10/09/1998                                       |
| <b>Name</b>                  | <b>RITTER, ROBERT S.</b>                                    |
| <b>Address</b>               | 1687 COLE BLVD., SUITE 300, GOLDEN, CO 80401, UNITED STATES |
| <b>Date of Birth</b>         | Place of Birth UNITED STATES                                |
| <b>Vice President</b>        | Appointed: 01/03/2008                                       |
| <b>Name</b>                  | <b>ROBERTSON, NEIL</b>                                      |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                 |
| <b>Vice President</b>        | Appointed: 01/01/2009                                       |
| <b>Name</b>                  | <b>ROSELAUF, JOHN</b>                                       |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                 |
| <b>Vice President</b>        | Appointed: 15/08/2006                                       |
| <b>Name</b>                  | <b>SAUER, HARRY W.</b>                                      |
| <b>Address</b>               | 2675 MORGANTOWN ROAD, READING, PA, 19607, UNITED STATES     |

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|                              |   |
|------------------------------|---|
| <b>Senior Vice President</b> | Appointed: 28/03/2001   |
| <b>Name</b>                  | <b>SCHNEIDER, RONALD</b>  |
| <b>Address</b>               | REPUBLIC CENTER, 633 CHESTNUT ST., STE 400, CHATTANOOGA, TN 37450 |
| <b>Date of Birth</b>         | <b>Place of Birth</b> UNITED STATES                               |
| <b>Senior Vice President</b> | Appointed: 28/03/2001   |
| <b>Name</b>                  | <b>SEAY, ROBERT</b>   |
| <b>Address</b>               | 633 CHESTNUT STREET, CHATTANOOGA, TN, 37450                       |
| <b>Vice President</b>        | Appointed: 15/08/2011   |
| <b>Name</b>                  | <b>SEPPLES, WILLIAM</b>   |
| <b>Address</b>               | 4221 LEGENDS WAY, MARYLAND, TN, 37801, UNITED STATES              |
| <b>Vice President</b>        | Appointed: 14/11/2005   |
| <b>Name</b>                  | <b>SLOCUM, ERNEST F. JR.</b>                                      |
| <b>Address</b>               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES          |
| <b>Vice President</b>        | Appointed: 25/08/2005   |
| <b>Name</b>                  | <b>SMALL, JOHN</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Senior Vice President</b> | Appointed: 01/04/2008   |
| <b>Name</b>                  | <b>SMITH, ALAN P.</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 15/08/2006   |
| <b>Name</b>                  | <b>SPARKS, EDDY</b>   |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 01/08/2010   |
| <b>Name</b>                  | <b>SUBRAMANIAM, CHANDRA</b>                                       |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 01/01/2011   |
| <b>Name</b>                  | <b>TANKOSIC, DJURICA</b>  |
| <b>Address</b>               | 45 KHAN ASPAROUH STREET, 1000 SOFIA, BULGARIA, BULGARIA           |
| <b>Senior Vice President</b> | Appointed: 01/11/2008   |
| <b>Name</b>                  | <b>VAN WILLIGEN, JAN H.</b>                                       |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Date of Birth</b>         | <b>Place of Birth</b> UNITED STATES                               |
| <b>Senior Vice President</b> | Appointed: 09/09/2010   |
| <b>Name</b>                  | <b>VICKERS, STEVE</b>   |
| <b>Address</b>               | 2220 GRANT ROAD, BILLINGS, MT, 59102, UNITED STATES               |
| <b>Vice President</b>        | Appointed: 09/08/2011   |
| <b>Name</b>                  | <b>VICKNAIR, JAMES</b>  |
| <b>Address</b>               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079                       |
| <b>Vice President</b>        | Appointed: 05/07/2008   |
| <b>Name</b>                  | <b>VOSKAMP, JAMES</b>   |

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|                       |  |                |                           |
|-----------------------|--|----------------|---------------------------|
| Address               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES |                |                           |
| Vice President        | Appointed: 07/09/2011                                    |                |                           |
| Name                  | <b>WELCH, JAMES C.</b>                                   |                |                           |
| Address               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079              |                |                           |
| Vice President        | Appointed: 25/02/2005                                    |                |                           |
| Name                  | <b>WILKES, PETER</b>                                     |                |                           |
| Address               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079              |                |                           |
| Senior Vice President | Appointed: 10/12/1996                                    |                |                           |
| Name                  | <b>WILLIAMS, RANDY</b>                                   |                |                           |
| Address               | 575 NORTH DAIRY ASHFORD, HOUSTON, TX, 77079              |                |                           |
| Vice President        | Appointed: 05/07/2008                                    |                |                           |
| Name                  | <b>WOLSKI, MICHAEL</b>                                   |                |                           |
| Address               | 6330 WEST LOOP SOUTH, BELLAIRE, TX, 77401, UNITED STATES |                |                           |
| Vice President        | Appointed: 01/05/2011                                    |                |                           |
| Name                  | <b>WOOD, ANDREW PETER</b>                                |                |                           |
| Address               | 47 BEACH ROAD, HAMPTON, VIC, 3188                        |                |                           |
| Date of Birth         | 16/09/1959   | Place of Birth | GRAVESEND, UNITED KINGDOM |
|                       |  | Occupation     | DIRECTOR                  |
| Nationality           | AUSTRALIAN   |                |                           |
| Director              | Appointed: 02/05/2011                                    |                |                           |