

## Appendix A

### Clean Water SRF Agencies and Contacts

State	Agency	CWSRF Contact	Telephone Number	Fax Number	Email Address
Alabama	Department of Environmental Management (ADEM)	James Dailey	(334) 271-7805	(334) 271-7952	jwd@adem.state.al.us
Alaska	Department of Environmental Conservation, Division of Water	Michael P Lewis	907-269-7616	907-269-7509	mike.lewis@alaska.gov
Arizona	Water Infrastructure Finance Authority of Arizona	Jon Bernreuter	(602) 364-1326	(602) 364-1327	jbernreuter@azwifa.gov
Arkansas	Arkansas Natural Resources Commission	Marylen Smith	(501) 682-0549	(501) 682-0561	marylen.smith@arkansas.gov
	Development Finance Authority	Kim Crowson	(501) 682-5900	(501) 682-5483	kcrowson@adfa.state.ar.us
California	State Water Resources Control Board	Christopher Stevens	(916) 341-5698	(916) 341-5707	cstevens@waterboards.ca.gov
Colorado	Colorado Water Resources and Power Development Authority	Michael Brod	(303) 830-1550 Ext. 15	(303) 832-8205	mbrod@cwprda.com
	Department of Public Health & Environment	Erick Worker	303-692-3594	303-691-7802	erick.worker@state.co.us
	Colorado Department of Local Affairs, Division of Local	Barry Cress	(303) 866-2352	(303) 866-4819	barry.cress@state.co.us
Connecticut	Department of Environmental Protection				
	Office of the Treasurer - Debt Management - Clean Water	Sharon Dixon Peay	(860) 702-3134	(860) 702-3034	sharon.peay@ct.gov
Delaware	Department of Natural Resources and Environmental Control	Frank Paquette	(302) 739-9941	(302) 739-2137	frank.paquette@state.de.us
Florida	Department of Environmental Protection	Michael Isaacson	(850) 245-8402	(850) 245-8411	michael.isaacson@dep.state.fl.us
Georgia	Georgia Environmental Facilities Authority	Kevin Kelley	(404) 584-1053	(404) 584-1069	kkelly@gefa.ga.gov
	Environmental Protection Division	Bob Scott	(404) 675-1753	(404) 657-6246	Bob_Scott@dnr.state.ga.us
Hawaii	Department of Health	Tomas See	(808) 586-4294	(808) 586-4300	tomas.see@doh.hawaii.gov
	Department of Health, Wastewater Branch	Kevin Yoshioka	(808) 586-4294	(808) 586-4300	Kevin.yoshioka@doh.hawaii.gov
Idaho	Department of Environmental Quality	Tim Wendland	(208) 373-0439	(208) 373-0576	tim.wendland@deq.idaho.gov
Illinois	Environmental Protection Agency	Marcia T. Willhite	(217) 782-2027	(217) 782-1654	Marcia.Willhite@epa.state.il.us
Indiana	Indiana Finance Authority	Matthew Martin	(317) 234-1278	(317) 234-1338	mmartin@ifa.in.gov
	State Revolving Fund Loan Programs	Shelley Love	(317) 233-4396	(317) 234-1338	slove@ifa.in.gov
Iowa	Department of Natural Resources	Patti Cale-Finnegan	(515) 725-0498	(515) 725-0348	patti.cale-finnegan@dnr.iowa.gov
	Iowa Finance Authority	Lori Beary	(515) 725-4900	(515) 725-4901	lori.beary@iowa.gov
Kansas	Department of Health and Environment	Rodney R. Geisler	(785) 296-5527	(785) 296-0086	rgeisler@kdheks.gov
	Department of Administration	Laura Wilcox	(785) 296-8083	(785) 296-6841	laura.wilcox@da.ks.gov
	Development Finance Authority	Jim MacMurray	(785) 296-6747	(785) 296-6810	jmacmurray@kdfa.org
Kentucky	Kentucky Infrastructure Authority	Kasi White	(502) 573-0260	(502) 573-0157	kasi.white@ky.gov
	Division of Water, Water Infrastructure Branch, EEC	Anshu Singh	(502) 564-3410	(502) 564-0111	anshu.singh@ky.gov
Louisiana	Department of Environmental Quality	Karyn Andrews	(225) 219-3863	(225) 219-3868	karyn.andrews@la.gov
Maine	Maine Municipal Bond Bank	Karen Asselin	(207) 622-9386	(207) 623-5359	kla@mmbb.com
	Department of Environmental Protection				
Maryland	Maryland Water Quality Financing Administration	Andrew Sawyers	(410) 537-3411	(410) 537-3968	asawyers@mde.state.md.us
	Water Management Administration	Walid Saffouri	(410) 537-3746	(410) 537-3517	wsaffouri@mde.state.md.us

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State	Agency	CWSRF Contact	Telephone Number	Fax Number	Email Address
<b>Massachusetts</b>	Water Pollution Abatement Trust	Patricia Deal	(617) 367-9333 Ext. 504	(617) 227-1773	pdeal@state.ma.us
	Department of Environmental Protection	Steven J. McCurdy	(617) 292-5779	(617) 292-5850	Steven.McCurdy@state.ma.us
	Executive Office of Administration and Finance	Jay Gonzalez	(617) 727-2040x35473	(617) 727-2779	jay.gonzalez@massmail.state.ma.us
<b>Michigan</b>	Department of Environmental Quality	Chip Heckathorn	(517) 373-4725	(517) 335-0743	heckathornc@michigan.gov
	Municipal Bond Authority	Lois Sauers	(517) 373-1728	(517) 335-2160	sauersl@michigan.gov
<b>Minnesota</b>	Public Facilities Authority	Jeff Freeman	(651) 259-7465	(651) 296-8833	jeff.freeman@state.mn.us
	Pollution Control Agency	Vickie Blomgren	(651) 296-3630	(651) 297-1456	vickie.blomgren@state.mn.us
	Department of Agriculture	Dwight Wilcox	(651) 201-6618	(651) 297-7678	dwright.wilcox@state.mn.us
<b>Mississippi</b>	Department of Environmental Quality	Tony Caldwell	(601) 961-5618	(601) 961-5187	tony_caldwell@deq.state.ms.us
	State Tax Commission	Cindy Moses	(601) 923-7669	(601) 923-7658	cmoses@mstc.state.ms.us
	Department of Finance and Administration	Kevin J. Upchurch	(601) 359-3402	(601) 359-2405	
<b>Missouri</b>	Department of Natural Resources	Mark Buersmeyer	(573) 751-1192	(573) 751-9396	Mark.Buersmeyer@dnr.mo.gov
	Environmental Improvement and Energy Resources Authority	Karen Massey	(573) 751-4919	(573) 635-3486	Karen.Massey@dnr.mo.gov
<b>Montana</b>	Department of Environmental Quality	Paul LaVigne	(406) 444-5321	(406) 444-6836	plavigne@mt.gov
	Department of Natural Resources & Conservation	Anna M. Miller	(406) 444-6689	(406) 444-6721	annam@mt.gov
<b>Nebraska</b>	Department of Environmental Quality	Jan Worster, Federal Aid Adm	(402) 471-4269	(402) 471-2909	jan.worster@ndeq.state.ne.us
<b>Nevada</b>	Division of Environmental Protection	Ana J. Jimenez	(775) 687-9420	(775) 687-9510	ajimenez@ndep.nv.gov
	Office of Financial Assistance	Ana J. Jimenez	(775) 687-9420	(775) 687-9510	ajimenez@ndep.nv.gov
<b>New Hampshire</b>	Department of Environmental Services	Gretchen R. Rich, P.G.	(603) 271-3448	(603) 271-4128	gretchen.rich@des.nh.gov
<b>New Jersey</b>	Environmental Infrastructure Trust	Maryclaire D'Andrea	(609) 219-8600	(609) 219-8620	mdandrea@NJEIT.ORG
	Department of Environmental Protection	Eugene J. Chebra, P.E., P.P.	(609) 633-1208	(609) 633-8165	Eugene.Chebra@dep.state.nj.us
<b>New Mexico</b>	Environment Department	Jennifer Prada	(505) 827-2807	(505) 827-2837	jennifer.prada@state.nm.us
<b>New York</b>	Environmental Facilities Corporation	William Brizzell	(518) 402-7433	(518) 402-7456	brizzell@nysefc.org
	Department of Environmental Conservation	Alexander B. Grannis	(518) 402-8545	(518) 402-8541	petegrannis@gw.dec.state.ny.us
<b>North Carolina</b>	Department of Environment and Natural Resources	Daniel M. Blaisdell	(919) 715-6211	(918) 715-6229	Daniel.Blaisdell@ncmail.net
<b>North Dakota</b>	Department of Health	Jeffrey C. Hauge	(701) 328-5211	(701) 328-5200	jhaug@nd.gov
	ND Public Finance Authority	DeAnn Ament	(701) 426-5723	(701) 328-7130	dament@nd.gov
<b>Ohio</b>	Environmental Protection Agency	Greg Smith	(614) 644-2798	(614) 644-3687	greg.smith@epa.state.oh.us
	Water Development Authority	Steve Grossman	(614) 466-5822	(614) 644-9964	steve@owda.org
<b>Oklahoma</b>	Water Resources Board	Joe Freeman	(405) 530-8800	(405) 530-8900	jsfreeman@owrb.ok.gov
<b>Oregon</b>	Department of Environmental Quality	Rick Watters	(503) 229-6814	(503) 229-6037	watters.rick@deq.state.or.us
<b>Pennsylvania</b>	Infrastructure Investment Authority	Anne Cavender	(717) 783-3493	(717) 705-1656	acavender@state.pa.us
	Department of Environmental Protection	Veronica Kasi	(717) 772-4053	(717) 787-9549	vbkasi@state.pa.us

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<b>Puerto Rico</b>	Environmental Quality Board (PREQB)	Wanda García	(787) 767-8073	(787) 767-1962	wandagarcia@jca.gobierno.pr
	Infrastructure Financing Authority (PRIFA)	Gabriel Rivera	(787) 722-4170	(787) 728-6835	gabriel.f.rivera@bgf.pr.com
<b>Rhode Island</b>	Clean Water Finance Agency	Robin K. Hedges	(401) 453-4430 Ext. 10	(401) 453-4094	rhedges@ricwfa.com
	Department of Environmental Management	John J. Manning, P.E.	(401) 222-3961 x7254	(401) 222-3564	jay.manning@dem.ri.gov
<b>South Carolina</b>	Department of Health & Environmental Control	David Price	(803) 898-3993	(803) 898-4215	Pricedc@dhec.sc.gov
	Budget and Control Board	Patricia A. Comp	(803) 737-3808	(803) 737-3807	compp@olg.sc.gov
<b>South Dakota</b>	Department of Environment and Natural Resources	David Templeton	(605) 773-4216	(605) 773-4068	dave.templeton@state.sd.us
<b>Tennessee</b>	Tennessee Department of Environment and Conservation	Jim Poff	(615) 532-0451	(615) 532-0199	Jim.Poff@state.tn.us
	Comptroller of the Treasury	Liz Birchett	(615) 747-5375	(615) 741-5986	Liz.Birchett@state.tn.us
	TDEC Division of Fiscal Services	Shirley Thornton	(615) 532-0315	(615) 532-0197	Shirley.Thornton@state.tn.us
<b>Texas</b>	Water Development Board	Diane Hyatt	(512) 463-7052	(512) 475-2998	diane.hyatt@twdb.state.tx.us
<b>Utah</b>	Department of Environmental Quality	Emily Cantón	(801) 538-6070	(801) 538-6016	ercanton@utah.gov
<b>Vermont</b>	Department of Environmental Conservation	Larry Fitch	(802) 241-3742	(802) 244-4516	larry.fitch@state.vt.us
	Vermont Municipal Bond Bank				
<b>Virginia</b>	Department of Environmental Quality	Walter A. Gills	(804) 698-4133	(804) 698-4132	wagills@deq.virginia.gov
	Virginia Resources Authority	Dr. Sheryl D. Bailey	(804) 644-3100	(804) 644-3109	sbailey@virginiaresources.org
<b>Washington</b>	Department of Ecology	Cindy Price	(360) 407-7132	(360) 407-7151	cpri461@ecy.wa.gov
<b>West Virginia</b>	Department of Environmental Protection	Rosalie M. Brodersen	(304) 926-0499 x1608	(304) 926-0496	Rosalie.M.Brodersen@wv.gov
	Water Development Authority	Chris Jarrett	(304) 558-3612	(304) 558-0299	cjarrett@wvwda.org
<b>Wisconsin</b>	DNR, Bureau of Community Financial Assistance	Becky Scott	(608) 267-7584	(608) 267-0496	rebecca.scott@wisconsin.gov
	Department of Administration	Ed Brinson	(608) 267-1836	(608) 266-7645	ed.brinson@wisconsin.gov
<b>Wyoming</b>	Office of State Lands and Investments	Rob Tompkins or Debra Dicks	(307) 777-6646 or 6373	(307) 777-2980	rtompk@state.wy.us or ddicks@stat
	Department of Environmental Quality	Brian Mark	(307) 777-6371	(307) 777-5973	bmark@wyo.gov

## Appendix B

# Know Your Rights Under the Recovery Act!

### *Did you know?*

The American Recovery and Reinvestment Act of 2009 <sup>1</sup> provides protections for certain employees of non-federal employers who make specified disclosures relating to possible fraud, waste and/or abuse of Recovery Act funds.

### *Who is protected?*

Employees of non-federal employers receiving recovery funds. This includes State and local governments, contractors, subcontractors, grantees or professional membership organizations acting in the interest of recovery fund recipients.

### *How are Whistleblowers Protected?*

You cannot be discharged, demoted or otherwise discriminated against as a reprisal for making a protected disclosure.

### *What types of disclosures are protected?*

The disclosure must be made by the employee to the Recovery Accountability and Transparency Board, an Inspector General, the Comptroller General, a member of Congress, a state or federal regulatory or law enforcement agency, a person with supervisory authority over the employee, a court or grand jury, or the head of a federal agency or his/her representatives.

The disclosure must involve information that the employee believes is evidence of:

- gross mismanagement of an agency contract or grant relating to recovery funds;
- a gross waste of recovery funds;
- a substantial and specific danger to public health or safety related to the implementation or use of recovery funds;
- an abuse of authority related to the implementation or use of recovery funds; or
- a violation of law, rule, or regulation related to an agency contract or grant awarded or issued relating to recovery funds.

### *Take Action!*

Log on to [Recovery.gov](http://Recovery.gov) for more information about your rights and details on how to report at [www.recovery.gov](http://www.recovery.gov).

<sup>1</sup> [Section 1553 of Division A, Title XV of the American Recovery and Reinvestment Act of 2009, P.L. 111-5](#)

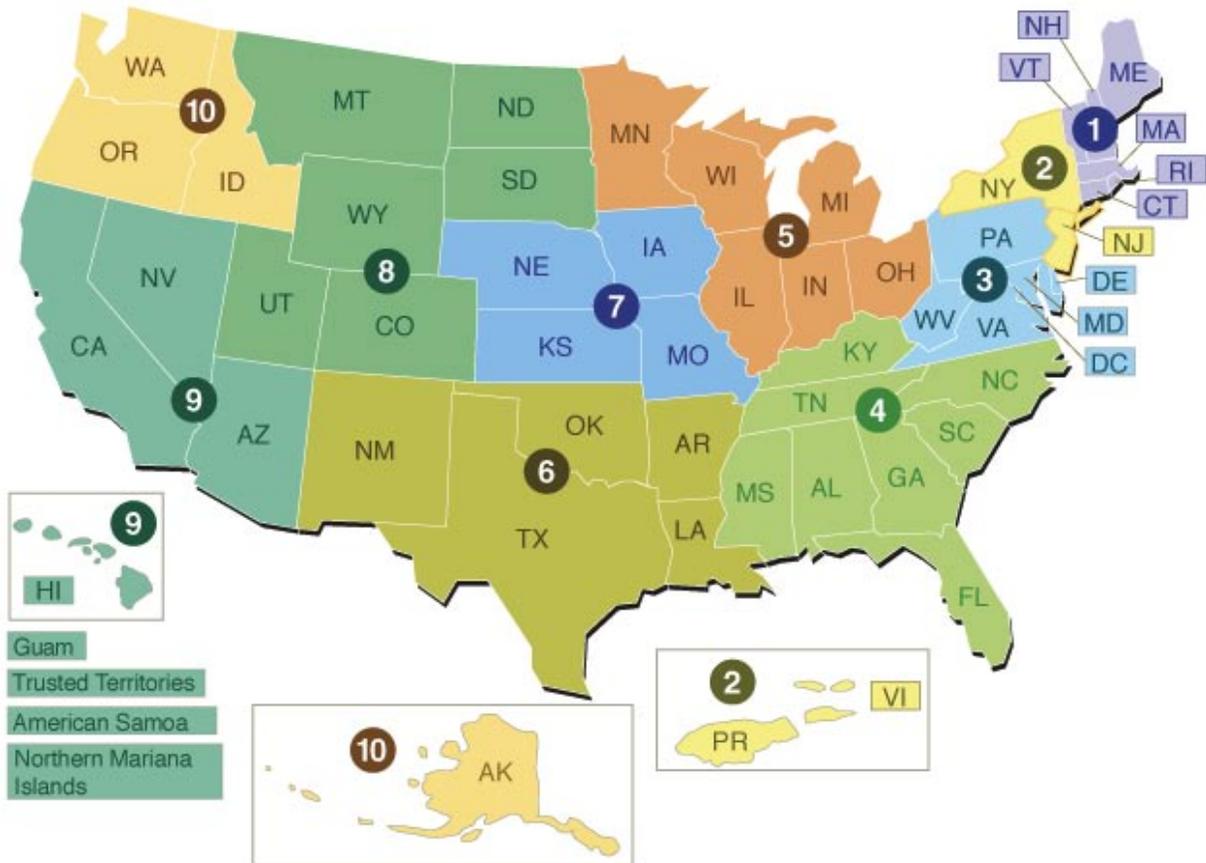
## Appendix C

### Information Checklist for Waiver Requests

The purpose of this checklist is to ensure that all appropriate and necessary information is submitted to EPA. Please review this checklist carefully and provide all required information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

Items	✓	Notes
<b>General</b> <ul style="list-style-type: none"> <li>• Waiver request includes the following information:               <ul style="list-style-type: none"> <li>— Description of the foreign and domestic construction materials</li> <li>— Unit of measure</li> <li>— Quantity</li> <li>— Price</li> <li>— Time of delivery or availability</li> <li>— Location of the construction project</li> <li>— Name and address of the proposed supplier</li> <li>— A detailed justification for the use of foreign construction materials</li> </ul> </li> <li>• Waiver request was submitted according to the instructions in the memorandum</li> <li>• Assistance recipient made a good faith effort to solicit bids for domestic construction materials/manufactured goods, as demonstrated by language in requests for proposals, contracts, and communications with the prime contractor</li> </ul>		
<b>Cost</b> <ul style="list-style-type: none"> <li>• Waiver request includes the following information:               <ul style="list-style-type: none"> <li>— Price Comparison Worksheet shown in Table 1</li> <li>— Relevant excerpts from the bid documents used by the contractors to complete the Price Comparison Worksheet</li> <li>— Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers</li> </ul> </li> </ul>		
<b>Availability</b> <ul style="list-style-type: none"> <li>• Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested:               <ul style="list-style-type: none"> <li>— Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials</li> <li>— Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers.</li> <li>— Project schedule</li> <li>— Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials</li> </ul> </li> <li>• Waiver request includes a statement from the prime contractor confirming the non-availability of the domestic construction materials for which the waiver is sought</li> <li>• Has the State received other waiver requests for the materials described in this waiver request, for comparable projects?</li> </ul>		

## Appendix D



If the assistance recipient is located in:

EPA Region 1 (VT, NH, ME, MA, RI, CT)  
EPA Region 2 (NY, NJ, PR, VI)  
EPA Region 3 (PA, WV, VA, DE, MD, DC)  
EPA Region 4 (NC, SC, GA, FL, AL, MS, TN, KY)  
EPA Region 5 (OH, MI, IN, IL, WI, MN)  
EPA Region 6 (LA, AR, OK, TX, NM)  
EPA Region 7 (MO, IA, KS, NE)  
EPA Region 8 (SD, ND, MT, WY, CO, UT)  
EPA Region 9 (AZ, NV, CA, HI, U.S. Territories)  
EPA Region 10 (ID, OR, WA, AK)

Email waiver requests to:

[Region1waiver@epa.gov](mailto:Region1waiver@epa.gov)  
[Region2waiver@epa.gov](mailto:Region2waiver@epa.gov)  
[Region3waiver@epa.gov](mailto:Region3waiver@epa.gov)  
[Region4waiver@epa.gov](mailto:Region4waiver@epa.gov)  
[Region5waiver@epa.gov](mailto:Region5waiver@epa.gov)  
[Region6waiver@epa.gov](mailto:Region6waiver@epa.gov)  
[Region7waiver@epa.gov](mailto:Region7waiver@epa.gov)  
[Region8waiver@epa.gov](mailto:Region8waiver@epa.gov)  
[Region9waiver@epa.gov](mailto:Region9waiver@epa.gov)  
[Region10waiver@epa.gov](mailto:Region10waiver@epa.gov)

## Appendix E

# EMPLOYEE RIGHTS UNDER THE DAVIS-BACON ACT

## FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

### PREVAILING WAGES

You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

### OVERTIME

You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

### ENFORCEMENT

Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

### APPRENTICES

Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

### PROPER PAY

If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

or contact the U.S. Department of Labor's Wage and Hour Division.



For additional information:

**1-866-4-USWAGE**  
(1-866-487-9243) TTY: 1-877-889-5627



**WWW.WAGEHOUR.DOL.GOV**

U.S. Department of Labor | Employment Standards Administration | Wage and Hour Division

WH 1321 (Revised April 2009)

# DERECHOS DEL EMPLEADO

## BAJO LA LEY DAVIS-BACON

### PARA OBREROS Y MECÁNICOS EMPLEADOS EN PROYECTOS DE CONSTRUCCIÓN FEDERAL O CON ASISTENCIA FEDERAL

LA SECCIÓN DE HORAS Y SUELDOS DEL DEPARTAMENTO DE TRABAJO DE EEUU

**SALARIOS PREVALECIENTES**

No se le puede pagar menos de la tasa de pago indicada en la Decisión de Salarios Davis-Bacon fijada con este Aviso para el trabajo que Ud. desempeña.

**SOBRETIEPMPO**

Se le ha de pagar no menos de tiempo y medio de su tasa básica de pago por todas las horas trabajadas en exceso de 40 en una semana laboral. Existen pocas excepciones.

**CUMPLIMIENTO**

Se pueden retener pagos por contratos para asegurarse que los obreros reciban los salarios y el pago de sobretiempo debidos, y se podría aplicar daños y perjuicios si no se cumple con las exigencias del pago de sobretiempo. Las cláusulas contractuales de Davis-Bacon permiten la terminación y exclusión de contratistas para efectuar futuros contratos federales hasta tres años. El contratista que falsifique los registros certificados de las nóminas de pago o induzca devoluciones de salarios puede ser sujeto a procesamiento civil o criminal, multas y/o encarcelamiento.

**APRENDICES**

Las tasas de aprendices sólo se aplican a aprendices correctamente inscritos bajo programas federales o estatales aprobados.

**PAGO APROPIADO**

Si Ud. no recibe el pago apropiado, o precisa de información adicional sobre los salarios aplicables, póngase en contacto con el Contratista Oficial que aparece abajo:

o póngase en contacto con la Sección de Horas y Sueldos del Departamento de Trabajo de EEUU.



Para obtener información adicional:

**1-866-4-USWAGE**

(1-866-487-9243) TTY: 1-877-889-5627



**WWW.WAGEHOUR.DOL.GOV**

## Appendix F

### 3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the **subrecipient** (s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3) ), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

**Subrecipient** s may obtain wage determinations from the U.S. Department of Labor's web site, [www.wdol.gov](http://www.wdol.gov).

(ii)(A) The **subrecipient** (s), on behalf of EPA, shall require that any class of laborers or mechanics,

including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The EPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the **subrecipient** (s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the **subrecipient** (s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the **subrecipient** (s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may

consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The **subrecipient** (s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the **subrecipient**, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State

recipient or EPA. As to each payroll copy received, the **subrecipient** shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the **subrecipient** (s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the **subrecipient** (s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United

States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the

work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the

Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and **Subrecipient** (s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

#### 4. **Contract Provision for Contracts in Excess of \$100,000.**

(a) Contract Work Hours and Safety Standards Act. The **subrecipient** shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFF [4.6](#) . As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation

of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The **subrecipient**, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in [29](#) CFR 5.1, the **Subrecipient** shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the **Subrecipient** shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

# Appendix G

**U.S. Department of Labor**  
Employment Standards Administration  
Wage and Hour Division

**PAYROLL**  
(For Contractor's Optional Use: See Instructions at [www.dol.gov/esa/whd/forms/wh347instr.htm](http://www.dol.gov/esa/whd/forms/wh347instr.htm))  
*Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.*



NAME OF CONTRACTOR OR SUBCONTRACTOR ADDRESS OMB No.: 1215-0149 Expires: 12/31/2011

PAYROLL NO. FOR WEEK ENDING PROJECT AND LOCATION PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING DEDUCTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS					(9) NET WAGES PAID FOR WEEK
				HOURS WORKED EACH DAY										FICA	WITH- HOLDING TAX	OTHER	TOTAL DEDUCTIONS		
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a), The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(x)(3)(i) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

**Public Burden Statement**

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room 53502, 200 Constitution Avenue, N.W., Washington, D.C. 20210

(over)



## Appendix H

### LABOR STANDARDS INTERVIEW

CONTRACT NUMBER				EMPLOYEE INFORMATION					
NAME OF PRIME CONTRACTOR				LAST NAME		FIRST NAME		MI	
				STREET ADDRESS					
NAME OF EMPLOYER				CITY		STATE	ZIP CODE		
				SUPERVISOR'S NAME		WORK CLASSIFICATION		WAGE RATE	
LAST NAME		FIRST NAME		MI					
ACTION							CHECK BELOW		
							YES	NO	
Do you work over 8 hours per day?									
Do you work over 40 hours per week?									
Are you paid at least time and a half for overtime hours?									
Are you receiving any cash payments for fringe benefits required by the posted wage determination decision?									
WHAT DEDUCTIONS OTHER THAN TAXES AND SOCIAL SECURITY ARE MADE FROM YOUR PAY?									
HOW MANY HOURS DID YOU WORK ON YOUR LAST WORK DAY BEFORE THIS INTERVIEW?				TOOLS YOU USE					
DATE OF LAST WORK DAY BEFORE INTERVIEW (YYMMDD)									
DATE YOU BEGAN WORK ON THIS PROJECT (YYMMDD)									
THE ABOVE IS CORRECT TO THE BEST OF MY KNOWLEDGE									
EMPLOYEE'S SIGNATURE							DATE (YYMMDD)		
INTERVIEWER	SIGNATURE			TYPED OR PRINTED NAME			DATE (YYMMDD)		
INTERVIEWER'S COMMENTS									
WORK EMPLOYEE WAS DOING WHEN INTERVIEWED				ACTION (If explanation is needed, use comments section)				YES	NO
				IS EMPLOYEE PROPERLY CLASSIFIED AND PAID?					
				ARE WAGE RATES AND POSTERS DISPLAYED?					
FOR USE BY PAYROLL CHECKER									
IS ABOVE INFORMATION IN AGREEMENT WITH PAYROLL DATA?									
<input type="checkbox"/> YES <input type="checkbox"/> NO									
COMMENTS									
CHECKER									
LAST NAME			FIRST NAME			MI	JOB TITLE		
SIGNATURE							DATE (YYMMDD)		

## Appendix I

### Reporting of Compensation

For the five most highly compensated officers of the entity: the names and total compensation	Provide the names and total compensation of the five most highly compensated officers of the recipient entity if--
	(1) the recipient in the preceding fiscal year received--
	(a) 80 percent or more of its annual gross revenues in Federal awards; and
	(b) \$ 25,000,000 or more in annual gross revenues from Federal awards; and
	(2) the public does not have access to information about the compensation of the senior executives of the entity through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986 [26 USCS § 6104].
	“Total compensation” means the cash and noncash dollar value earned by the executive during the subrecipient’s past fiscal year of the following (for more information see 17 CFR 229.402(c)(2)):
	(i). Salary and bonus.
	(ii). Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with FAS 123R.
	(iii). Earnings for services under non-equity incentive plans. Does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
	(iv) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
(v). Above-market earnings on deferred compensation which is not tax-qualified.	
(vi). Other compensation. For example, severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property if the value for the executive exceeds \$10,000.	

## **Appendix J**

### **Jobs Definitions**

#### **Created job:**

A job created is a new position (full-time OR temporary) created and filled as a result of ARRA funding of infrastructure projects. Only compensated employment should be reported.

#### **Retained job:**

A job retained is an existing position (full-time OR temporary) that would not have been continued were it not for ARRA funding. Only compensated employment should be reported.

#### **Direct job:**

Direct jobs are the job-years created in the actual government-sponsored project. An example of a direct job would be a worker employed to construct a facility or to maintain equipment on-site whose time is charged directly to the project. In the case of a wastewater treatment plant expansion, direct job hours could also include the time spent by the assistance recipient's employees in preparing specifications or conducting the procurement.

#### **Indirect job:**

Indirect jobs are the job-years created at suppliers who make the materials used in the project. For example, this could be a worker who makes the steel or other construction materials used at the project site, or who manufactures a pump purchased by a municipality using ARRA funds. These indirect jobs are not charged directly to the project but are embedded in materials costs.

#### **Induced job:**

Induced jobs are the job-years created elsewhere in the economy as increases in income from the direct government spending lead to additional increases in spending by workers and firms. An example of an induced job is a fast food worker who sells lunches to your workers.

## Appendix K

### Attachments 7 and 8 of EPA Guidance Memo dated March 2, 2009

#### CWSRF Project Descriptions and Examples for Green Project Reserve

The ARRA requires that at least 20% of each State's capitalization grant be used to fund projects referred to as the Green Project Reserve. The following is a set of examples for projects EPA believes would be eligible. It should be noted that all project eligibility requirements otherwise applicable to the CWSRF program apply to the Green Project Reserve.

Under the Green Project Reserve in the CWSRF both entire projects may be considered for inclusion or appropriate identifiable components of larger projects may be considered for inclusion. Whatever projects or project components are included, such projects or project components must clearly advance the objectives articulated in the specific categories discussed below.

#### Business Case Requirements for Counting Costs toward the 20% Reserve

There are some types of projects that clearly will qualify towards the 20% Green Project Reserve, being entirely and explicitly framed as a green infrastructure or a water or energy efficiency project. However, some types of traditional projects may also have benefits that may in some cases be counted towards the 20% Green Project requirement. For such traditional projects (or portion of a project) to be counted towards the 20% requirement, the State's project files must contain documentation that the clear business case for the project (or portion) investment includes achievement of identifiable and substantial benefits that qualify as Green Project benefits.

The required documentation could be a simple memo but must indicate the basis on which this project was judged to qualify to be counted toward the 20% requirement. Such a memo would typically include direct reference to a preliminary engineering or other planning document that makes clear that the basis upon which the project (or portion) was undertaken included identifiable and substantial benefits qualifying for the Green Project Reserve.

#### Water Efficiency

- I. Water efficiency is the use of improved technologies and practices to deliver equal or better services with less water.
- II. Projects eligible for assistance include assistance
  - a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act
    - i. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible; to the extent practicable, such projects should be coordinated with drinking water systems and projects.
    - ii. Building activities that implement capital water efficiency projects are eligible.

- b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act
  - i. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.
  - ii. Building activities that implement capital water efficiency projects are eligible.
- c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.
  - i. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.
  - ii. Building activities that implement capital water efficiency projects are eligible.
- III.** Water efficiency projects can stand alone projects. They do not need to be part of a larger capital improvement project.
- IV.** Drinking Water Utilities may apply to the Clean Water State Revolving Fund.
- V.** Examples of projects include
  - a. Installation of water meters
  - b. Retrofit or replacement of water using fixtures, fittings, equipment or appliances
  - c. Efficient landscape or irrigation equipment
  - d. Systems to recycle gray water
  - e. Reclamation, recycling, and reuse of existing rainwater, condensate, degraded water, stormwater, and/or wastewater streams.
  - f. Collection system leak detection equipment

### **Energy Efficiency**

- I.** Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water quality projects, including projects to reduce energy consumption or produce clean energy used by a treatment works defined in Sec. 212.
  - a. Web link to EPA's clean energy site <http://www.epa.gov/cleanenergy/>
  - b. Clean energy includes wind, solar, geothermal, hydroelectric, and biogas combined heat and power systems.
- II.** Projects eligible for assistance include assistance
  - a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act
    - i. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital energy efficiency projects are eligible.
  - b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act
    - i. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.

- ii. Building activities that implement capital energy efficiency projects are eligible.
  - c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.
    - i. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital energy efficiency projects are eligible.
- III. Energy efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.
- IV. Examples of projects include
  - a. Energy efficient retrofits and upgrades to pumps and treatment processes
  - b. Leak detection equipment for treatment works
  - c. Producing clean power for 212 treatment works on site (wind, solar, hydroelectric, geothermal, biogas powered combined heat and power)<sup>3</sup>

**Green Infrastructure**

- I. Definition: Green Infrastructure includes a wide array of practices at multiple scales that manage and treat stormwater and that maintain and restore natural hydrology by infiltrating, evapotranspiring and capturing and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale green infrastructure consists of site- and neighborhood-specific practices, such as bioretention, trees, green roofs, porous pavements and cisterns.
- II. Projects eligible for assistance include assistance
  - a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act
    - i. Planning and design activities for green infrastructure that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital green infrastructure projects are eligible.
  - b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act
    - i. Planning and design activities for green infrastructure that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital green infrastructure projects are eligible.
  - c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.
    - i. Planning and design activities for green infrastructure that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital green infrastructure projects are eligible.

- III. If a project is specifically required by a draft or final NPDES permit, then it can only be funded through Sec. 212 or Sec. 320 authority
- IV. Green infrastructure projects can be stand alone projects. They do not need to be part of a larger capital improvement project.
- V. Examples of projects include
  - a. Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits
  - b. Implementation of water harvesting and reuse programs or projects, where consistent with state and local laws and policies.
  - c. Implementation of wet weather management systems for parking areas which include: the incremental cost of porous pavement, bioretention, trees, green roofs, and other practices that mimic natural hydrology and reduce effective imperviousness at one or more scales, including constructed wetlands.
  - d. Hydromodification to establish or restore riparian buffers, floodplains, wetlands and other natural features.
  - e. Downspout disconnection to remove stormwater from combined sewers and storm sewers.
  - f. Comprehensive retrofit programs designed to keep wet weather out of all types of sewer systems using green infrastructure technologies and approaches.
  - g. Implementation of comprehensive street tree or urban forestry programs, including expansion of tree box sizes to manage additional stormwater and enhance tree health.

#### **Environmentally Innovative Projects**

- I. Projects that demonstrate new and/or innovative approaches to managing water resources in a more sustainable way, including projects that achieve pollution prevention or pollutant removal with reduced costs and projects that foster adaptation of water protection programs and practices to climate change.
- II. Projects eligible for assistance include assistance
  - a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act
    - i. Planning and design activities for environmentally innovative projects that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital environmentally innovative projects are eligible.
  - b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act
    - i. Planning and design activities for environmentally innovative projects that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital environmentally innovative projects are eligible.
  - c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.
    - i. Planning and design activities for environmentally innovative projects that are reasonably expected to result in a capital project are eligible.
    - ii. Building activities that implement capital environmentally innovative projects are eligible.

- III.** Examples of projects include
- a. Green Infrastructure/Low Impact development stormwater projects
  - b. Wetland restoration and constructed wetlands
  - c. Decentralized wastewater treatment solutions to existing deficient or failing on site systems.
  - d. Water reuse projects that reduce energy consumption, recharge aquifers or reduce water withdrawals and treatment costs
  - e. The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.
  - f. Projects that use water balance approaches (water budgets) at the project, local or state level that preserve site, local or regional hydrology. Such an effort could show-case efforts to plan and manage in a concerted manner, surface and groundwater withdrawals, stream flow (aquatic species protection), wetland and floodplain storage, groundwater recharge and regional or local reuse and harvesting strategies using a quantified methodology.
  - g. Projects that facilitate adaptation of clean water programs and practices to climate change.
  - h. The water quality portion of projects that demonstrate the energy savings and greenhouse reduction benefits of sustainable site design practices and the use of green stormwater infrastructure.
  - i. Projects that incorporate differential uses of water based on the level of treatment to reduce the costs of treating all water to potable water standards.
  - j. Projects that identify and quantify the benefits of using integrated water resources management approaches.

## Appendix L

### Guidance on Energy Efficient Business Case for Wastewater Pumping Systems

Modifications, retrofits or replacement of existing wastewater pumping systems that achieve a 20% increase in energy efficiency will categorically qualify for the Green Project Reserve (GPR) required by the American Reinvestment and Recovery Act (ARRA). Projects that do not achieve a 20% increase in energy efficiency can also count towards the GPR if they have a business case showing how the project significantly improves energy efficiency. Information to be included in a business case for wastewater pumping stations is provided below.

Business cases for wastewater pumping systems must include information that demonstrates that energy efficiency is the primary goal of the project. They should clearly show that: 1) the most energy efficient equipment is being used in the project, 2) that energy efficient design and operational considerations and practices are followed, 3) the percent increase in energy efficiency and KWH saved, and 4) why further energy efficiency improvements cannot be achieved.

#### 1) Energy Efficient Equipment

The business case shall demonstrate that selected equipment is of the highest efficiency suitable for the project. The following are examples of standards or guidelines to be met:

- Selection of new or replacement electrical equipment should meet or exceed energy efficiency standards set forth by professional engineering and manufacturers associations such as the National Electrical Manufacturers Association (NEMA).
- If it is not possible to select new electrical equipment that can meet or exceed energy efficiency standards then applicants must provide acceptable evidence of why this could not be achieved, with rationale for selecting alternate equipment if the goal of energy efficiency is to be achieved.

#### 2) Energy Efficient Design Practices and Considerations

The business case shall demonstrate that all energy efficient design practices and considerations suitable for the project were used. The following are general examples of design considerations where energy efficiency could be demonstrated:

- Pumping systems should be designed to operate in their most efficient zone. Pumps should be selected to operate close to the Best Efficiency Point (BEP) on a pump curve defined as the point with maximum efficiency of the pump. Choose pumps that result in the lowest friction head loss and ensure that pumps are properly sized for the pumping system.
- Pumping systems should be designed to reduce flows to be pumped where possible.

- Reduce pipe friction and lower head losses to reduce the energy needed for pumping. Note that repair and replacement of the collection system piping does not qualify as “green” except in the most dramatic infiltration/inflow cases.
- Where appropriate for energy efficiency purposes, use distributed control systems to operate the most efficient combination of pumps, and at the proper pump speeds, for needed flow rates and pressures.

### 3) Energy Savings

Comparing the energy requirements of the existing system with the energy requirements of the proposed upgrades yields the increase in energy efficiency. Business cases for energy efficient wastewater pumping projects should calculate the increase in energy efficiency as follows:

$$\frac{\text{kWh/year used prior to the upgrade} - \text{kWh/year used after the upgrade}}{\text{kWh/year used prior to the upgrade}}$$

The answer is expressed as a percentage improvement. The business case should clearly report the kWh/year saved by the project.

### 4) Energy Saving Justification

Business cases that demonstrate significant energy efficiency improvements will utilize all practical opportunities to improve energy efficiency. Consequently, each business case should discuss why the project cannot achieve a higher level of energy efficiency. One possible answer is that prior energy efficiency improvements have elevated the operation to a point where the remaining gains represent a smaller improvement.

## Appendix M

### Green Project Business Case Example

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#### GREEN PROJECT RESERVE – BUSINESS CASE REQUIREMENTS

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The proposed Georgetown WWTF Phase II Improvements Project includes 14 components that are eligible for ARRA *Green Project Reserve* funds. Table 1 presents the Classification of each component in accordance with the four (4) categories listed in EPA's Attachment 7, as well as the Associated Costs of each component and the total project. The sections following Table 1 present the required justifications for each component and the confirmations required for the Environmentally Innovative Project Components. Further information on the proposed green components can also be found in Section 7 and Appendix E of the March 2009 Preliminary Engineering Report.

**Table 1. Green Project Reserve Component Classifications and Costs**

CLASSIFICATIONS:		JUSTIFICATION	TOTAL COST	COST NOTES
<u>Water Efficiency</u>				
1	Plant-wide non-potable water (NPW) system using reclaimed effluent	Categorical	\$28,600	See Note 1
2	Site landscaping/ xeriscaping	Categorical	\$28,600	See Note 1
<b>Sub-total</b>			<b>\$57,200</b>	
<u>Energy Efficiency</u>				
3	On-site wind power generation system	Categorical	\$552,900	See Note 1
4	Engineering feasibility analysis for on-site hydroelectric power generation	Categorical	\$30,000	Engineering Costs only
5	Automated air delivery control using variable speed high efficiency blowers, online process instruments, air flow meters, actuated valves, and air control panel	Categorical	\$353,067	See Note 1
6	Treatment process upgrade to biological denitrification process (anoxic reactors), including additional excavation and concrete	Categorical	\$328,900	See Note 1
7	Passive solar building lighting and heating	Categorical	\$14,300	See Note 1
8	Treatment process concrete covers, aluminum access hatches, and FRP dome for new secondary clarifier	Categorical	\$302,946	See Note 1
9	Variable Frequency Drives for RAS and Recirculation Pumps	Categorical	\$25,025	See Note 1
10	Advanced System Process Control Equipment, Programming, Data Acquisition/ Trending, and Operator Interface	Categorical	\$114,400	See Note 1
<b>Sub-total</b>			<b>\$1,721,538</b>	

CLASSIFICATIONS:		JUSTIFICATION	TOTAL COST	COST NOTES
<b>Environmentally Innovative</b>				
11	Mobile biosolids dewatering system	Categorical w/ Business Case	\$107,250	See Note 1
12	Upflow reactive sand filters for phosphorus and zinc removal with reduced chemical use (filters, controls, filter feed pumps, pH adjustment, chemical dosing equipment, flow monitoring equipment)	Categorical w/ Business Case	\$457,243	See Note 1
13	Advanced Nitrification Removal Process (IFAS), not including denitrification related items	Categorical w/ Business Case	\$693,550	See Note 1
14	On-site sodium hypochlorite disinfectant generation (including dosing pumps)	Categorical w/ Business Case	\$94,380	See Note 1
Sub-total			\$1,352,423	
Green Project Reserve Total			\$3,121,161	
Wastewater Treatment Facility Improvements Project Total			\$5,850,000	
Green Percent of Total Project Cost			53%	

**Note 1:** Total line item costs include engineering and contractor prorates, "Buy American" provisions, Davis-Bacon prorates, and equipment costs. No concrete, excavation, or building costs have been associated with any of the items listed above with the exception of Item 6. Upon request, these additional costs could be added.

## **Justifications and Confirmations**

<b>CLASSIFICATION:</b> Water Efficiency
<b>Definition:</b> "...use of improved technologies and practices to deliver equal or better services with less water."

### **Item 1 – Plant-wide non-potable water (NPW) system**

**Description:** Reclaimed, filtered effluent for plant water demands such as landscape irrigation, washdown and polymer make-up water, seal water, chlorine make-up water, and toilet flushing.

**Justification:** Categorical, matches the definition and cited examples.

**Reference:** Reclamation/recycling of wastewater streams are cited as examples of water efficiency projects in Attachment 7, Page 43.

**Discussion:** Specific planned uses include landscape irrigation, washdown water, polymer make-up water, seal water, chlorine makeup water, and toilet flushing. Replacement of potable water with filtered effluent will reduce the plant's potable water demand and associated costs to provide potable water to the plant, as well as to avoid the additional cost of chlorination and dechlorination of the non-potable water to be used. The estimated water usage by the reuse system is expected to range between 300 and 1,500 gallons per day.

**Item 5 – High-efficiency Blowers with Automated Controls**

**Description:** Upgrade/ replace existing conventional positive displacement blowers with variable frequency (speed), ultra-high efficiency blowers, new stainless steel piping, actuated butterfly valves, thermal mass flow meters, online process monitoring probes (such as dissolved oxygen) and air blower control panel.

**Justification:** Categorical, matches the definition and cited examples.

**Reference:** Attachment 7, pg 44; and EPA SFR Webcast Training Series Presentation, March 12, 2009, Slide # 50 specifically cite “Retrofits and upgrades to pumps and treatment processes” as “energy efficiency” project examples.

**Discussion:** The proposed WWTF Phase II Improvements include upgrading the aeration blower system from a typical positive displacement (PD) blower to a high-speed, turbo-compressor (HST). Turbo-compressors are relatively new innovations that are being applied to WWTF process aeration systems due to the considerable improvement in efficiency they provide over typical blowers. Aeration of a WWTF is the biggest power draw for a WWTF by far, so improving the efficiency of this process has a large impact on the power usage and carbon footprint of a WWTF. Refer to literature on turbo-compressor blowers in the March 2009 PER Appendix E for more information.

Based on a detailed analysis, upgrading to three (3) turbo-compressor blower systems will reduce the aeration energy usage by the WWTF upgrade by 17 to 30 percent, depending on the air required by the WWTF process. For example, during typical, day-to-day operations (350 scfm), a reduction of 30 percent in the operating motor horsepower is expected with turbo-compressors instead of positive displacement blowers. During peak day operations (oxygen demand of 650 scfm), the energy savings is somewhat less, at a 16 percent reduction. The following tables summarize the total energy savings expected when using HST blowers instead of PD blowers.

Air Flow Rate (scfm)	Operating Motor BHP		% Reduction with HST
	HST	PD	
350	18.93	26.9	30%
450	24	32.8	27%
650	37	44.4	17%

Air Flow Rate (scfm)	Operating Energy Use		# Operating	Op Hrs/Yr	Annual kW-hr		kW-hr Savings with HST	Annual Value of Savings
	HST kW	PD kW			HST	PD		
350	14.15964	20.1212	3	6570	279,087	396,589	117,502	\$8,225.16
450	17.952	24.5344	3	6570	353,834	483,573	129,739	\$9,081.74
650	27.676	33.2112	3	6570	545,494	654,593	109,099	\$7,636.92