

## Technical

- 1. For clarification, please confirm what is included in Activity 7 on page 12. Are the items listed following Activity 7 on pages 12-16 part of the services to be provided (i.e. not on an “as requested basis”) and included in the base prices.**

To clarify our response to Activity 7 on pages 12 through 16, ARCADIS will provide the services as detailed in the RFP as part of the scope of work included in our base price.

- 2. Please provide a detail description of your company’s and the proposed subcontractors’ experience in the area of zero waste planning. Since your proposed contractors are slated to be the lead for the majority of the activities to be performed, please provide a description of the relevant expertise and experience of the subcontractors.**

ARCADIS will be leading and coordinating each activity in our proposal. In fact, we see our role in some cases as providing mentorship to our team members in both managing and executing various aspects of this project including zero waste planning. However, our team members, Nspiregreen LLC and Koetz and Duncan LLC, do have experience and expertise in many aspects of solid waste management including zero waste planning. Below is a synopsis of the zero waste planning we and our team members have executed.

ARCADIS has several decades of experience in providing our local government clients with solid waste planning and plan implementation services which has been focused on maximizing waste reduction, increasing recycling and beneficially processing waste materials to reduce dependency on disposal – all steps on the road to zero waste. A number of these clients, who are referenced in our proposal, achieve high rates of diversion through an integrated approach of waste reduction, reuse, recycling, composting and energy recovery with only residues being landfilled. An integrated approach to zero waste planning is, in our experience not only in North America but also in Europe, the proven way to achieving a zero waste goal in a sustainable manner.

As the principal consultant to the Solid Waste Authority of Palm Beach County, Florida, since 1998, ARCADIS has provided service through an updating of its Integrated Solid Waste Management Plan in 2006. The Plan’s focus was on minimizing the landfilling of waste and moving further toward zero waste. We have since assisted the Authority in development of expanded public involvement programs aimed at waste reduction and recycling; a new Materials Recovery Facility which opened in 2009; a Sludge Drying Pelletizer Facility using landfill gas which opened in 2010; refurbishment of its existing waste-to-energy facility (a refuse-derived facility with mixed waste pre-processing) which was completed in 2011; a comprehensive review

and report on alternative emerging technologies; and currently are providing planning and implementation services for the first new waste-to-energy facility to be built in the United States since 1996. With this new waste-to-energy facility, scheduled for start up the fall of next year, along with the Authority's other existing programs including composting, yard waste bio-mass, pre and post combustion metals recovery, household hazardous waste collection, and electronics recycling, Palm Beach County's landfill diversion rate will approach 85%.

Another example can be found in Westchester County, New York, where ARCADIS has provided solid waste planning and plan implementation services for more than 50 years, all aimed at reducing landfilling and achieving zero waste. During that time ARCADIS has written and updated the County's solid waste management plan several times; led the development on a Materials Recovery Facility which processes source separated recyclables and was named MRF of the Year; supported development of its waste-to-energy facility; planned and provided construction support for development of its residue disposal site; and provided planning efforts for composting and transfer station facilities. In 2010, ARCADIS completed a comprehensive review of alternative and emerging technologies as the County continues to work toward a sustainable zero waste program. Westchester has one of the highest waste reduction rates in the Northeast.

The York County Solid Waste Authority, Pennsylvania, a client since 1983, has asked ARCADIS to provide planning and implementation services on a number of projects toward achieving a sustainable zero waste program. York has developed, with its cities, an aggressive waste reduction, reuse and recycling program. In addition to curbside recycling provided by individual cities, the Authority has a Drop-Off Program which includes yard waste mulching, traditional recyclables, electronics recycling, white goods, tires and household hazardous waste collection. Energy is recovered from the County's post-recycling waste stream at the York County Resource Recovery Center. Residues from the YCRRC are further processed, recovering ferrous and non-ferrous metals and the processed residue is used as a construction material. A large part of any successful integrated solid waste management program is public education. The examples above each operate outreach activities focused on differing components of the local communities. In York PA, the Authority's waste management center is visited by every school in the County. Palm Beach County has a nature preserve on its waste management campus. These facilities are used to teach members of the community not only about solid waste management and its role in environmental sustainability, but to also advance awareness of the benefits of comprehensive planning, waste reduction and minimization, recycling and resource management.

The ARCADIS Project resume is enhanced with the experience of the subcontractors who are a part of our Project Team. Individuals with all three subcontractors, Nspiregreen LLC, Koetz and Duncan LLC, and RKE Enterprises LLC, have experience in both industry and many levels of

government in planning and implementing sustainable zero waste programs for clients as diverse as Texas Instruments and the United States Air Force.

ARCADIS has a long history of not only meeting but exceeding goals for use of small and minority owned business when they can add value to our clients. As a part of its ongoing business, ARCADIS provides mentoring and other support to these firms aimed at building both their expertise and service delivery capacity. ARCADIS is a worldwide company but our focus is on our clients and the local communities we serve. We embrace being able to partner with local subcontractors and helping them grow their businesses along with ours.

In her capacity first as Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health in January of 2002, and later as Principal Deputy and Acting Assistant Secretary, Ms. Koetz oversaw all policy and programming related to solid waste management at Air Force installations worldwide. During her tenure, the Air Force initiated programs that resulted in a 64% waste diversion rate, recovering or recycling 76 percent of construction and demolition debris, and 48 percent of non-hazardous municipal solid waste from all disposal facilities by 2006. These steps toward zero-waste were achieved through integrated programming to divert large amounts of non-hazardous municipal solid waste from landfills, recycle wastes that could potentially be hazardous, and prevent waste at its source through the implementation of broad acquisition and supply programs to procure more environmentally preferable products. Using Natural Infrastructure Management processes (the forerunner to NCAM™), the Air Force was able to identify avoided greenhouse gas emissions and other natural capital asset capacity created by waste avoidance and handling efficiencies.

Prior to co-founding Nspiregreen LLC, Chancee` Lundy managed the environmental programs at Texas Instruments largest manufacturing facility, DMOS5, which employed about 3000 people. In this role, she was responsible for managing all of the environmental programs at the facility as well as serving on the corporate sustainability team which had oversight of the four manufacturing facilities on campus employing a total of over 10,000 people.

As the solid and hazardous waste program manager for DMOS5, Chancee` restructured and implemented a Zero Waste Plan for the facility. Chancee` sought areas to reduce consumption of materials and worked with waste brokers to identify facilities for reuse and recycle. The waste management program included solid material waste, organic waste and bulk chemicals such as sulfuric acid. These implemented waste management processes lead to an average annual waste efficiency rate of 93%. This efficiency rate was the result of behavior modifications by employees, thorough analysis of the waste stream, coordination between a myriad of stakeholders from the facilities engineers, to cleaning crew to transportation and logistics. Managing the solid and hazardous waste program gave Chancee` an in depth knowledge and experience in regulatory compliance, program feasibility, development, implementation and performance measurement for solid waste systems.

**3. Please clarify the team's experience applying the NCAM tool to specific prior projects, in particular those projects for which you have provided similar solid waste consulting and waste planning services and how it would be applied in performance of this project.**

Koetz and Duncan LLC and ARCADIS (then Malcolm Pirnie) first teamed to apply Natural Capital Asset Management™ (NCAM™) procedures to evaluate waste handling processes for the Metropolitan Water Reclamation District (District) of Greater Chicago. The assessment was designed to evaluate the natural and physical capital requirements and savings from disinfection alternatives under consideration to meet effluent requirements. The evaluation also took into account the current socioeconomic conditions of the communities served by the District.

As designed, the evaluation followed the structural format used in the ARCADIS DCDPW proposal: Identify and catalogue the built (physical plant) and natural (air, land, water use rights) infrastructure controlled and used by the client to manage its waste loadings under current conditions; inventory and calculate the increases and decreases in infrastructure use requirements created by the waste management alternatives under consideration, providing input into both cost calculations and value creation due to increased usability or asset capacity resulting from the waste handling processes adopted; and lastly characterize the key factors for consideration in determining the technical feasibility and economic reasonableness of various waste management alternatives so as to optimize the use of natural capital and infrastructure while reducing the loadings on air, land, or water affected by the client's operations.

Koetz and Duncan LLC again worked with Malcolm Pirnie staff on a more complex NCAM™ project involving an international weapons procurement. In that case, multiple aircraft were evaluated using the NCAM™ process for comparative air emission waste loadings in both greenhouse gas and criteria pollutant categories. The results were then comparatively analyzed under controlling Environmentally Preferable Product regulations mandated for European Union procurement rules (also binding in the United States under the Federal Acquisition Regulations). The NCAM™ data supported the client manufacturer in a successful bid. This evaluation used similar evaluation techniques first developed by Ms. Koetz in the Air Force and used for a comprehensive evaluation of the comparative natural infrastructure requirements among F-16 and replacement F-35 aircraft, as well as F-15 and replacement F-22 aircraft. The study results were used in basing, training, and other operational decisions regarding the deployment rates and locations for the new aircraft to natural capital stressed locations, and formed the foundation for the Natural Infrastructure Management (NIM) programming deployed to move environmental management from regulatory compliance to mission capability support. NIM policies were especially vital to address the growing problem of encroachment—the loss of capability resulting from reduced access to and use of air, land and water assets for training and operations.

ARCADIS will again be teaming with Koetz and Duncan for an ongoing project with the U.S. Department of Energy to inventory and catalogue the natural capital capacity of its weapons complex sites already begun with a program at the Savannah River Site in South Carolina. A Phase I NCAM™ evaluation at SRS identified millions of dollars in usable airshed capacity (missed by the EIS) created when a biofuel generating facility replaced a coal plant. Some of the credits were used by local government and businesses to offset their emissions and prevent further compliance actions by the U.S. EPA in the region. The Phase II program will expand the NCAM™ inventory and appraisal to capture all land, water, and air components that both provide ecosystem service value (such as forests and wetlands), and those available for expanded mission and enterprise activities as natural infrastructure (process water, air emission credits, land/open space).

As these examples show, NCAM™ is an advanced environmental evaluation system that captures data on a multi-dimensional level so as to actually mine value from alternatives that optimize eco-efficiency and promotes sustainability. While traditional evaluation programs identify “impacts” and “mitigation,” NCAM™ results reveal capacity- and capability-based growth potential by calculating reduced natural capital use rates and savings for each alternative and recording them as assets, not just as mitigation. This matrixed approach built on a value platform allows for comparison across more and better quantified data fields, and goes beyond two-dimensional evaluations not designed to support the asset management focus of the DC DPW residual management program under the Mayor’s Sustainability vision.

## Subcontracting Plan

- 4. Please review your Subcontracting Plan and submit a corrected plan. The total amount of CBE Subcontracts (Item 4a) was more than the total amount of all subcontracts, including CBE (Item 3). In addition a dollar amount instead of a percentage was stated in Item 5b.**


Please see attached revised Subcontracting Plan.





**SUBCONTRACTORS LIST**

(List each subcontractor that will be awarded a subcontract to meet your total subcontracting goal.)

SUBCONTRACTOR INFORMATION:															
Name	Address & Telephone No.	NIGP Code(s)	Description of Work												
 Nspiregreen LLC	2027 Martin Luther King Jr. Ave. Suite 102 Washington, DC 20020 202.450.5267	918-43-15	Community Business Issues												
Total Subcontract Amount: \$105,000.00 Percentage of Subcontracted Effort (excluding the cost of materials, good, and supplies) 100%    Tier: : _____ <span style="margin-left: 300px;">1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup></span>		Point of Contact: <u>Veronica Davis</u> <span style="margin-left: 150px;">Name (Print)</span> Contact Telephone Number: <u>202.450.5267</u> Fax Number: <u>888.347.2417</u> Email Address: <u>vdavis@nspiregreen.com</u>													
CBE Certification Number: <u>LSDZ47500082013</u>  Certification Status: (check all that apply) <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">SBE:</td> <td style="padding: 2px;">LBE:</td> <td style="padding: 2px;">DBE:</td> <td style="padding: 2px;">DZE:</td> <td style="padding: 2px;">ROB:</td> <td style="padding: 2px;">LRB:</td> </tr> <tr> <td align="center" style="padding: 2px;">X</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		SBE:	LBE:	DBE:	DZE:	ROB:	LRB:	X							
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SUBCONTRACTOR INFORMATION:															
Name	Address & Telephone No.	NIGP Code(s)	Description of Work												
Total Subcontract Amount: \$ _____ Percentage of Subcontracted Effort (excluding the cost of materials, good, and supplies) : _____ %    Tier: : _____ <span style="margin-left: 300px;">1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup></span>		Point of Contact: _____ <span style="margin-left: 150px;">Name (Print)</span> Contact Telephone Number: _____ Fax Number: _____ Email Address: _____													
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FOR CO USE ONLY			
Date Plan Received by CO: _____			
Plan: <input type="checkbox"/> Acceptable	<input type="checkbox"/> Not Acceptable	Contract Number: _____	
Name of CO	Signature	Date	