EXHIBIT 1 30004521

PORTLAND STATE UNIVERSITY

INTERGOVERNMENTAL AGREEMENT

This Agreement is entered into between the City of Portland, Oregon, hereinafter referred to as SPONSOR and the Portland State University, hereinafter referred to as UNIVERSITY.

WITNESSETH:

WHEREAS SPONSOR desires UNIVERSITY'S services on "Portland Single Family Weight Study 2015-17," in accordance with the SCOPE OF WORK, Attachment A hereunder;

WHEREAS the performance of such services is consistent, compatible and beneficial to the academic role and mission of UNIVERSITY;

Therefore, in consideration of the mutual promises and covenants contained herein, the parties hereto agree as follows:

ARTICLE I -SCOPE OF WORK

UNIVERSITY agrees to perform for SPONSOR the services described in ATTACHMENT A hereto, which by this reference is incorporated herein and made a part hereof.

ARTICLE II -AGREEMENT PERIOD

The IGA will be effective as of February 1, 2015 and will continue in effect for a two-year period until January 31, 2017 unless subsequent time extension, supplement, addition, continuation, or renewal is mutually agreed upon in writing between the parties. Costs may be incurred for this Agreement from January 1, 2015.

ARTICLE III -SCIENTIFIC PERSONNEL

Lisa K. Bates is responsible for the conduct of research under this Agreement for the UNIVERSITY. The UNIVERSITY shall not replace Lisa K. Bates without prior written approval of the SPONSOR.

ARTICLE IV - CONSIDERATION

SPONSOR agrees to pay UNIVERSITY for services performed under this Agreement in the fixed price amount of \$80,297. The payments will be submitted in the following amounts and according to the following schedule:

April 1st, 2015	\$9,598
July 1st, 2015	\$9,598
October 1st, 2015	\$9,598
January 1st, 2016	\$9,596
April 1st, 2016	\$10,477
July 1st, 2016	\$10,477
October 1st, 2016	\$10,477
January 1st, 2017	\$10,476

Invoices for work accomplished under this Agreement shall be submitted quarterly via email to Arianne Sperry at arianne.sperry@portlandoregon.gov. Each invoice shall be for one-quarter of the annual price; the final invoice to be received no later than June 1, 2017. SPONSOR certifies that sufficient funds are available and authorized to finance the costs of this Agreement. Payment shall be sent to Portland State University, Sponsored Projects Administration, PO Box 751-SPA, Portland, Oregon 97207-0751.

ARTICLE V-NOTICE

Any notice provided for under this Agreement shall be sufficient if in writing and delivered to the following addressee or to such other person as may be identified in writing to the other party:

If to SPONSOR: Arianne Sperry City of Portland Bureau of Planning and Sustainability 1900 SW 4th Avenue, Suite 700 Portland, OR 97201-5380 (503) 832-7652

Email: arianne.sperry@portlandoregon.gov

If to UNIVERSITY:
Jennifer Ward
Associate Director
Sponsored Projects Administration

Portland State University PO Box 751 (SPA) Portland, OR 97207-0751 (503) 725-9900

Email: awards@pdx.edu

ARTICLE VI-PERFORMANCE REPORTING REQUIREMENT

UNIVERSITY is responsible for the performance of work and will provide progress reports of findings, if any, as stated in ATTACHMENT A, SCOPE OF WORK. UNIVERSITY shall maintain fiscal records pertinent to this Agreement for at least three (3) years following completion of work under this Agreement. UNIVERSITY shall maintain all fiscal records relating to this Agreement in accordance with generally accepted accounting principles. In addition, UNIVERSITY shall maintain all other records pertinent to this Agreement in such a manner as to clearly document UNIVERSITY'S performance hereunder.

ARTICLE VII -CONFIDENTIALITY

Subject to the limitations and conditions of the Oregon Public Records law, UNIVERSITY agrees to

keep confidential any SPONSOR proprietary information that SPONSOR designates as such and supplies to UNIVERSITY during the course of this Agreement. Such information will not be included in any published material without prior approval by SPONSOR.

ARTICLE VIII -INDEMNIFICATION

Subject to the conditions and limitations of the Oregon Tort Claims Act (ORS 30.260 through 30.300) and the Oregon Constitution, Article XI, Section 7, UNIVERSITY shall indemnify SPONSOR against any liability for damage to life or property arising from UNIVERSITY'S actions under this Agreement provided, however, UNIVERSITY shall not be required to indemnify SPONSOR for any such liability arising out of the wrongful or negligent acts of employees or agents of SPONSOR.

Subject to the conditions and limitations of the Oregon Tort Claims Act (ORS 30.260 through 30.300) and the Oregon Constitution, Article XI, Section 9, SPONSOR shall indemnify UNIVERSITY against any liability for damage to life or property arising from SPONSOR'S actions under this Agreement provided, however, SPONSOR shall not be required to indemnify UNIVERSITY for any such liability arising out of the wrongful or negligent acts of employees or agents of UNIVERSITY.

ARTICLE IX COMPLIANCE WITH LAWS

This Agreement shall be governed and construed in accordance with the laws of the State of Oregon. Any suit for enforcement shall occur, if in the state courts, in the Multnomah County Court having jurisdiction thereof, and if in the federal courts, in the United States District Court for the District of Oregon.

ARTICLE X - ASSIGNMENT

Neither party shall assign or transfer any interest in this Agreement, nor assign any claims for money due or to become due during this Agreement, without the prior written approval of the other party.

ARTICLE XI -COPYRIGHT

UNIVERSITY may assert copyright on materials that it produces in the performance of the work of this agreement. SPONSOR shall have a non-transferable, irrevocable, worldwide, royalty-free, non-exclusive license to use, reproduce, publish or re-publish, or otherwise disseminate such copyrighted materials for non-commercial purposes only. SPONSOR has unrestricted access to and use data and information from the report for governmental purposes.

ARTICLE XII - TERMINATION

This Agreement may be terminated by either of the parties hereto upon written notice delivered to the other party at least thirty (30) days prior to intended date of termination. By such termination, neither party may nullify obligations already incurred for performance or failure to perform prior to the date of termination. Payment to UNIVERSITY shall be prioritized to and include the day of termination.

THIS AGREEMENT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS AGREEMENT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS AGREEMENT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. SPONSOR, BY THE SIGNATURE BELOW OF ITS AUTHORIZED REPRESENTATIVE, ACKNOWLEDGES HAVING READ AND UNDERSTOOD THE AGREEMENT AND SPONSOR AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date set forth herein by their duly authorized representatives.

PORTLAND STATE UNIVERSITY	CITY OF PORTLAND				
\ Q					
Name: Jennifer Ward					
Title: Associate Director, Sponsored Projects					
	Name: Charles Hales				
Date:	Title: Mayor of City of Portland				
	Date:				
Employer Tax ID Number: 36-4776757					

ATTACHMENT A SCOPE OF WORK

Portland Single Family Weight Study 2015-17

PERIOD OF PERFORMANCE: JANUARY 1, 2015 THRU JANUARY 31, 2017

Section 1: PSU Responsibilities

The **UNIVERSITY** shall provide services specifically to Solid Waste & Recycling, Bureau of Planning & Sustainability, to determine average weight of garbage set out at the curbside of single-family residences in the Portland region. The **UNIVERSITY** shall provide the **CITY** those services set out below.

UNIVERSITY shall collect container weight data from randomly selected, stratified neighborhoods. Protocol for data collection is specified below in the section titled, "Data Collection."

Section 2: Data Collection

The UNIVERSITY shall collect the following data in the following manner:

- 1. At the beginning of the contract period, **UNIVERSITY** staff will create ten separate single-family (SF) residential walking routes. **UNIVERSITY** staff will divide the ten walking routes between the two calendar years of the contract period so that five walking routes are completed each year: five in the first calendar year (2015), and the remaining five in the following calendar year (2016). To the extent possible, **UNIVERSITY** staff will ensure that each set of five walking routes contains an even distribution of routes in terms of income and geographic location.
- 2. Each route will contain approximately 100 SF households each. The **UNIVERSITY** staff, in cooperation with **CITY** and Metro, shall select the ten route areas using a list of randomly generated single-family residential households within the City of Portland Urban Services Boundary.

- 3. **UNIVERSITY** staff will obtain the random selection of households from Metro and will ensure the selection is stratified by property value (low, medium, and high) and location (N, NE, SE NW, SW). The final route list shall be representative of the SF household population.
- 4. **UNIVERSITY** shall execute a total of four observations of each SF household in each of the five walking routes over the course of one calendar year for a total of approximately 2,000 observations each calendar year for the duration of the contract.
- 5. Once four observations have been completed for the first set of five routes, **UNIVERSITY** shall execute observations of the new set of five routes assigned at the beginning of the contract period (see Data Collection #1 above).
- 6. **UNIVERSITY** shall coordinate with franchised haulers to arrange data collection days and times. Once the data collection schedule has been set, **UNIVERSITY** will send the schedule to the **CITY** to provide notice to its customer service representatives. During data collection, haulers will be requested to stay out of the area between 6:00am and 8:00am.
- 7. **UNIVERSITY** staff will record the weight (pounds) of garbage for each house with set outs on the route. Data collection will be scheduled to coincide with garbage collection day.
- 8. UNIVERSITY will record the presence of recycling and composting roll-cart set out.
- 9. **UNIVERSITY** will determine set-out net weights by deducting average tare weights for each container from the field recorded gross weight for each container set out at the curb. **UNIVERSITY** will derive tare weight averages from existing Single Family Weight Study field data in addition to manufacturer's specifications.
- 10. If new container types are identified or existing tare weights are determined to be inaccurate, **UNIVERSITY** will develop and implement a plan to establish or update tare weights.
- 11. UNIVERSITY will perform data entry of all observations into a Microsoft Excel spreadsheet.
- 12. **UNIVERSITY** will perform yearly data analysis of current and past data to determine trends in garbage set-out behavior.
- 13. **UNIVERSITY** will provide analysis of recycling and composting participation rates by geographic location.

Section 3: Citywide Data Collection Schedule

UNIVERSITY shall execute four observations of residential routes in accordance with the quarterly schedule set out below:

O1 winter:

January 16 - March 15

Q2 spring:

March 16 - June 15

Q3 summer:

June 16 - September 15

Q4 fall:

September 16 – December 15

Route schedules will rotate each season so that each route is observed at least once in the first half of the month and once in the second half of the month (i.e., first week of month in spring and second week of the month in summer) where cooperation with hauler is established.

Any modification of the above schedule for data collection must be agreed upon by the **CITY** and the **UNIVERSITY**.

Section 4: Deliverables

- 1. **UNIVERSITY** shall provide **CITY** with an excel spreadsheet with all route data compiled within three weeks (21 days) of completing each quarter's data collection.
- 2. **UNIVERSITY** shall provide **CITY** with analysis of SF data for each full calendar year that observations are made for routes. Each analysis in narrative report format shall not exceed roughly 10 pages and shall compare **UNIVERSITY'S** historical project data to the new data collected.
- 3. **UNIVERSITY** shall provide **CITY** with each analysis no later than January 31st, 2016 and January 31st, 2017.

Section 5: City Responsibilities

To assist the **UNIVERSITY** in carrying out its obligations, the **CITY** shall perform the services set out below:

- 1. The CITY shall ensure that the haulers selected to participate in this study cooperate with UNIVERSITY personnel in completing this project. Hauler cooperation shall include providing UNIVERSITY with route related information to facilitate completion of the sample collection as well as coordinating scheduling of sampling activity to ensure that curbside set-outs are available for measurement. Failure to cooperate, including hauler interference in the collection of data, may result in the hauler being dropped and/or replaced and a reduction in total sample size collected by UNIVERSITY.
- 2. The **CITY** shall ensure that sample property selection is provided by Metro or some other mutually acceptable source.

Title:

Single Family Weight Study

PI: Sponsor: Period: Lisa Bates City of Portland 2/1/15-1/31/17

Salary Increment: Tuition Increment: 3.0% 6.0%

item	Term / Appt	Mo. Rate	%	Months	Months	Year 1	Year 2	Total	Notes
Salaries & Wages									
Lisa Bates, PI	N/C				İ				
Renee Curtiis	12	4,361	10.0%	12.0		5,233	5,390	10,623	
Moonrose Doherty	12	4,511	9.7%	10.0	12.0	4,376	5,409	9,785	
		Hourly Rate	# Hours	# Weeks	error dia regi				
Hourly Project Lead Position		15.00	6.0	52.0		4,680	4,680	9,360	
Hourly Student		13.00	1.45	39.0		735	735	1,470	
Hourly Student Summer		13.00	1.45	13.0		245	245	490	
Fringe Benefits									
Renee Curtiis			75.0%			3,925	4,043	7,968	
Moonrose Doherty			88.8%			3,886	4,800	8,686	
Hourly Project Lead Position			5.0%			234	234	468	
Hourly Student			1.0%			7	7	15	
Hourly Student Summer			8.8%			22	22	43	
Subtotal - Personnel						23,343	25,565	48,908	
Other Direct Costs									
r i itali, legal debista		Tuition Waiver	# quarters	# Students					
Tuition		1,500	3	1		4,500	4,770	9,270	
				~		-			
		YR I	YR 2					-	
Travel		Rate	Rate	Months					
		\$ 125	\$ 150	12		1,500	1,800	3,300	
		\$ 75	75	12		900	900	1,800	
Materials & Supplies						75	75	150	
Other - Communications phone lines)						150	150	300	
Subtotal - Other Direct Costs						7,125	7,695	14,820	
Total Direct Costs						30,468	33,260	63,728	
Indirect Costs			26.0%			7,922	8,648	16,569	
Total				I a see see		38,390	41,907	80,297	