

AGREEMENT NUMBER IWM06046
REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

California Integrated Waste Management Board (CIWMB)

CONTRACTOR'S NAME

Regents of the University of California

2. The term of this Agreement is: December 15, 2006 through December 15, 2008 or upon final approval signature.

3. The maximum amount of this Agreement is: \$ 150,000.00 One hundred fifty thousand dollars and no cents

4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement.

Exhibit A – Scope of Work	3 pages
Exhibit B – Budget Detail and Payment Provisions	2 pages
Exhibit C* – General Terms and Conditions <i>viewable at www.ols.dgs.ca.gov/Standard+Language</i>	GIA 101
Exhibit –D* Special Terms and Conditions <i>viewable at www.ciwmb.ca.gov/Contracts/Forms/SpecTandCsIA.pdf</i> Attachment 1 – Recycled Content Certification	2 pages

Items shown with an Asterisk (), are hereby incorporated by reference and made part of this agreement as if attached hereto.*

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR		California Department of General Services Use Only
CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.) Regents of the University of California		
BY (Authorized Signature) 	DATE SIGNED(Do not type)	
PRINTED NAME AND TITLE OF PERSON SIGNING Russell Lewis, Director, Material Management		
ADDRESS UC, Riverside, 1200 University Avenue Riverside, CA 92507		
STATE OF CALIFORNIA		
AGENCY NAME California Integrated Waste Management Board		
BY (Authorized Signature) 	DATE SIGNED(Do not type)	
PRINTED NAME AND TITLE OF PERSON SIGNING Mark Leary, Executive Director		
ADDRESS 1001 I Street, Sacramento, CA 95814		

Exempt per:

SCOPE OF WORK

1. The Contractor agrees to provide the California Integrated Waste Management Board (CIWMB), with Agricultural Compost Specifications services as described herein.
2. The project coordinators during the term of this agreement will be:

CIWMB

Waste Prevention & Market Development

Name: Ronald Lew

Phone: (916) 341-6592

Fax: (916) 319-7408

Email: rlew@ciwmb.ca.gov

University of California, Riverside

Name: Thomas Weaver

Phone: (951) 827-1645

Email: tweaver@ucx.ucr.edu

3. Statement of Work

I. INTRODUCTION/OBJECTIVES

The objective of this Agricultural Compost Specifications project is to improve and expand compost use in agriculture by providing reliable scientifically-derived information on suitable compost properties to California farmers. The project represents an extension of the ACP Use Index which is under continuing development by technical experts affiliated with University of California Cooperative Extension, and industry experts associated with the Association of Compost Producers (ACP).

Composting conserves resources by converting organic wastes to valuable soil amendments. Proper composting eliminates phytotoxic compounds, objectionable odors, and human, plant, and animal pathogens. Compost use improves soil tilth, water holding capacity, drainage potential, fertility, and biodiversity. It is well established that composts can both reclaim damaged soils and preserve productive lands.

Besides stabilized organic matter, composts contain macro-nutrients, micro-nutrients, salts and metals. In addition, some composts may retain decomposition by-products that can be harmful to some crops. The degree to which these constituents are desirable or objectionable will depend on crop and soil characteristics so it is imperative that farmers be given the information they need to identify compost products that will work for their particular operation. Compost specifications will help farmers to avoid using mismatched or poor quality composts can depress yields. Bad experiences with compost generate negative publicity and represent a serious obstacle to expanding compost markets so that California organic residues are used beneficially.

II. WORK TO BE PERFORMED

The work to be performed by a multidisciplinary team will be directed by representatives of the University of California, Riverside and the Association of Compost Producers. Tasks to be completed include (1) the development of a comprehensive set of compost specifications tailored to each of five California crops identified as being promising compost receptors; (2) incorporation of the newly developed specifications into the existing Association of Compost Producers (ACP) Compost Index that is currently being developed under separate Waste Board contract; and (3) extension of the newly developed specifications to the agricultural community through workshops, brochures, and continuing education materials.

III. TASKS IDENTIFIED

Task 1: Assemble Team, Conduct Literature Search, Develop Work Plan, Identify Crops

Identify work team members based on management experience and scientific expertise in the areas of agriculture, soils, and compost. Convene initial planning meeting with CIWMB staff and team members including the California Department of Food and Agriculture. Establish a process for determining the acceptance of the final product. Identify work groups needed to complete the project. Inventory current compost specifications nationwide and compile and analyze information for data gaps. Establish benefits and problems with existing approaches. Conduct needs analysis that identifies specification gaps and maps out how new information generated by the proposed research will supplement or replace existing specification models. Identify reference crops. Crops will

be identified based on their value, available acreages, their proximity to compost sources, and their history with respect to compost use.

Task 2: Determine Research Methods. Conduct Needed Experiments.

Develop a collaborative web site to share information. Design research methodology that will help locate parameter values for the new specifications. Finalize the specifications structure. Use designated methodology to conduct experiments that will generate information needed to define parameters for the specifications approach. Laboratory experiments will emphasize Test Methods for the Examination of Composting and Compost (TMECC) measures and will emphasize how specification parameters interrelate. Greenhouse studies will consider the impact of interrelated measures on reference crops.

Task 3: Use Collected Information to Set Specifications

Compile information and data from Tasks 1 and 2. Convene meetings with University of California and other crop and soil experts and parameterize the specifications. Specifications will be designed to identify composts that can be used safely without harming crops. Soil conditions will be included as necessary.

Task 4: Implement Use Index

Convene meetings with composters as to the reasonableness of the proposed specification values. Incorporate new specifications into the ACP Use index that will be used as a reference tool for growers and composters. Develop means for communicating the Use Index to growers.

Task 5: Beta test ACP index with growers

Assemble reference group of farmers. Design and extend beta test procedure. Conduct test. Gather feedback on ACP index, specification information, and information delivery approach with reference group and prepare written assessment. Identify Index marketing opportunities.

Task 6: Specification refinement

Refine and update index to incorporate Beta test findings. Further develop the information delivery approach incorporating on-line educational techniques.

Task 7: On-line implementation and marketing

Coordinate with CIWMB staff to publish ACP index and compost specifications via Web links in the Green Procurement Action Plan (GPAP) toolbox. Provide written materials to CIWMB staff for the development of brochures and informational publications. Finalize locations for three educational workshops designed to extend information to farmers.

Task 8: Conduct Workshops

Conduct three educational workshops with members of the agricultural community, professionals who advise them, Cooperative Extension farm advisors, composters, and other interested parties. Arrange continuing education credits for Certified Crop Advisors if feasible. Workshop organization and publicity will be organized together with CIWMB personnel.

IV. CONTRACT/TASK TIME FRAME

Task	Description	Date
Task 1	Project Team, Literature Search, Work Plan, Crops	Winter/Spring 2007
Task 2	Research Methods, Experiments	Spring 2007/Summer 2008
Task 3	Set Specifications	Summer 2008
Task 4	Implement Use Index	Summer/Fall 2008
Task 5	Beta Test	Spring/Summer 2008
Task 6	Specification Refinement	Fall 2008
Task 7	Specification Refinement	Fall/Winter 2008
Task 8	Conduct Workshops	Winter 2008

The Contractor should, at a minimum, ensure that the following issues are addressed:

A. WRITTEN DOCUMENT PROVISION

All documents and/or reports drafted for publication by or for the Board in accordance with this contract shall adhere to the Board's *Guidelines For Preparing CIWMB Reports (available upon request)* and shall be reviewed by the Board's Contract Manager in consultation with one of the Board's editors.

In addition, these documents and/or reports shall be printed double-sided on paper with a minimum of 30% post-consumer recycled content fiber. The paper should identify the postconsumer recycled content of the paper (i.e., "printed on 50% postconsumer paper"). When applicable, the Contractor shall provide the Contract Manager with an electronic copy of the document and/or report for the Board's uses.

To the greatest extent possible, soy ink instead of petroleum-based inks should be used to print all documents.

B. CONFERENCING PROVISION

The Contractor shall take any and all steps necessary to make sure that the Event is a model for future recycling, waste prevention, diversion, buy recycled, and waste management events.

Paper Products: All paper products used to fulfill the requirements of this contract (nametags, badges, letters, envelopes, brochures, etc) must contain at least 30% post-consumer recycled content fiber.

Re-usable Cups, Plates & Utensils: To the greatest extent possible, use re-usable/washable utensils, dishes, tableware, etc. rather than single-use disposable products.

Leftover Food/Beverages: All leftover food and/or beverages associated with the event will be donated to an established food donation outlet. Arrangements for the donation must be made prior to the date of the event. CIWMB staff will assist the contractor in identifying these donation outlets, if needed.

Recycling/Composting: Arrangements must be made with the venue, sponsor, or by contract, to provide adequate collection bins for recyclables, organics (food waste) or biodegradable materials, and trash (non-recyclables). The bins should contain at least 30% post-consumer plastic. In addition, the contractor shall work with the venue and/or sponsors to maximize diversion of the discarded materials.

Soy-based Printing Ink: To the greatest extent possible, soy ink instead of petroleum-based inks should be used to print all documents needed for the event.

PAYMENT PROVISIONS AND BUDGET DETAIL

1. INVOICING AND PAYMENT:

- A. For services satisfactorily rendered and upon receipt and approval of the invoices, the State agrees to compensate the Contractor for actual expenditures incurred in accordance with the rates specified herein.
- B. Itemized invoices shall be submitted in triplicate, with two sets of supporting documentation (i.e., receipts, timesheets, etc), not more frequently than monthly in arrears to:

California Integrated Waste Management Board
Financial Assistance Branch
1001 "I" Street
P.O. Box 4025, MS-19A
Sacramento, CA 95812-4025

- C. Each invoice submitted to the CIWMB must include the following information:

- Invoice Number
- Contract Number
- Description of Rendered Activities/Services
- Submitting Contractor's Address
- Invoice Period

2. BUDGET:

Task	Sub-task	Workplan	Budget
			Category Total
Agricultural Compost Project			
1		Assemble Team, Conduct Literature Search, Develop Work Plan, Identify Crops	\$20,400
	1	Hold project kick-off meeting	\$3,200
	2	Conduct literature search	\$9,000
	3	Perform analyses on data gaps	\$4,500
	4	Develop work plan	\$3,700
2		Determine Research Methods, Conduct Needed Experiments	\$52,730
	1	Design research methods	\$3,100
	2	Identify reference crops	\$8,200
	3	Conduct experiments	\$41,430
3		Use Collected Information to Set Specifications	\$13,700
	1	Compile data from task 2	\$9,300
	2	Draft specifications	\$4,400
4		Implement Use Index	\$8,000
	1	Convene meetings with composters	\$5,000
	2	Incorporate new specifications into the ACP Use Index	\$2,000
	3	Develop means of communicating the Use Index to growers	\$1,000

5		Beta Test ACP Index with Growers	\$28,800
	1	Assemble reference group of farmers	\$5,300
	2	Design and extend beta test procedure	\$3,300
	3	Conduct beta test	\$12,200
	4	Gather feedback and prepare written assesment	\$8,000
6		Specification Refinement	\$3,400
	1	Refine and update index to incorporate Beta Test findings	\$2,600
	2	Expand on information delivery systems	\$800
7		On-line Implementation and Marketing	\$3,200
	1	Publish ACP Index and Compost Specifications	\$1,600
	2	Finalize locations for workshops	\$1,600
8		Plan and Conduct Workshops	\$19,770
	1	Design workshops	\$4,300
	2	Conduct workshops	\$15,000
	3	Compile results	\$500
TOTAL CONTRACT AMOUNT			\$150,000.00

1. Postconsumer material comes from products that were bought by consumers, used, and then recycled. For example: a newspaper that has been purchased and read, next recycled, and then used to make another product would be postconsumer material.

If the product does not fit into any of the product categories, enter “N/A.” Common N/A products include wood products, natural textiles, aggregate, concrete, electronics such as computers, TV, software on a disk or CD, telephone

2. Product category refers to one of the product categories listed below, into which the reportable purchase falls. For products made from multiple materials, choose the category that comprises most of the product by weight, or volume.

Note: For reused or refurbished products, there is no minimum content requirement.

For additional information visit www.ciwmb.ca.gov/BuyRecycled/

Code	Description Product Categories (11)	Minimum content requirement
1	Paper Products - Recycled	30 percent postconsumer fiber, by fiber weight
2	Printing and Writing - Recycled	30 percent postconsumer fiber, by fiber weight
3	Compost, Co-compost, and Mulch - Recycled	80 percent recovered materials. i.e., material that would otherwise be normally disposed of in a landfill
4	Glass - Recycled	10 percent postconsumer, by weight
5	Rerefined Lubricating Oil - Recycled	70 percent re-refined base oil
6a	Plastic - Recycled	10 percent postconsumer, by weight
6b	Printer or duplication cartridges	a. Have 10 percent postconsumer material, or b. Are purchased as remanufactured, or c. Are backed by a vendor-offered program that will take back the printer cartridges after their useful life and ensure that the cartridges are recycled and comply with the definition of recycled as set forth in Section 12156 of the Public Contract Code.
7	Paint - Recycled	50 percent postconsumer paint (exceptions when 50% postconsumer content is not available or is restricted by a local air quality management district, then 10% postconsumer content may be substituted)
8	Antifreeze - Recycled	70 percent postconsumer material
9	Retreated Tires - Recycled	Use existing casing that has undergone retreading or recapping process in accordance with Public Resource Code (commencing with section 42400).
10	Tire- Derived - Recycled	50 percent postconsumer tires
11	Metals - Recycled	10 percent postconsumer, by weight