

Humboldt Waste Management Authority  
Strategic Plan



Prepared for:

Humboldt Waste Management Authority

Prepared by:

R3 Consulting Group, Inc.

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## Table of Contents

<b>Introduction</b> .....	<b>1</b>
Purpose .....	1
Strategic Planning Process .....	1
Data Sources .....	2
Limitations.....	3
<b>Background</b> .....	<b>3</b>
HWMA Role.....	4
Member Agency Roles .....	7
<b>Strategic Plan Implementation</b> .....	<b>8</b>
Mission and Vision .....	8
Areas of Focus.....	8
<b>Phase I: Immediate Strategies (Completed by 2014)</b> .....	<b>11</b>
Strategy 1.1: Secure Long-term Disposal Capacity .....	11
Strategy 1.2: Work with Member Agencies to Procure Regional Source-Separated Recyclables Processing Capacity.....	12
Strategy 1.3: Evaluate Development of the Anaerobic Digestion Treatment System Project.....	13
Strategy 1.4: Renegotiate Contracts Related to Mad River Compost Facility.....	15
Strategy 1.5: Increase Tip-Floor Diversion Operations.....	15
Strategy 1.6: Examine Food Waste Diversion Pilot Program.....	16
Strategy 1.7: Explore Developing Permitted Organic Composting Capacity .....	17
Strategy 1.8: Set a Regional Diversion Target of 75%.....	17
Strategy 1.9: Assume Regional Reporting Responsibilities .....	19
<b>Phase II: Intermediate Strategies (Completed by 2018)</b> .....	<b>20</b>
Strategy 2.1: Expand the Satellite Universal Hazardous Waste Collections.....	20
Strategy 2.2: Promote Material Reuse at Hawthorne Street Transfer Station .....	21
Strategy 2.3: Conduct Annual Survey of Member Agency Services .....	22
Strategy 2.4: Compile Franchised Haulers' Diversion Reports .....	23
Strategy 2.5: Develop Model Policy Documents for Member Agencies .....	24
Strategy 2.6: Expand Public Education .....	25
Strategy 2.7: Transition to Self-Funded Programs.....	27

Phase III: Long-Term Strategies (Completed by 2023) ..... 29  
    Strategy 3.1: Develop Mixed Waste Processing Capacity, If Economically Feasible.. 29

## Tables

Table 1: List of Strategies and Focus Areas by Phase ..... 9  
Table 2: HWMA 75 Percent Diversion Calculation ..... 18

## Appendices

Appendix A: Existing Conditions

Appendix B: Additional Diversion Potential Analysis

Appendix C: Needs Assessment

- Community Workshop Presentation
- Summary of PAC Suggestions on Draft Policies
- PAC Meeting Presentations
- Draft Policies Provided to PAC

Appendix D: Board Presentations

Appendix E: Public Comment

## Introduction

Humboldt Waste Management Authority (HWMA) was formed through a joint powers agreement in 1999, and is comprised of six jurisdictions (“Member Agencies”) within Humboldt County: the cities of Arcata, Blue Lake, Eureka, Ferndale, Rio Dell and, representing the unincorporated area, Humboldt County (Unincorporated County). HWMA was formed to provide for the economical coordination of integrated waste management services and efficiently and fairly assure against potential adverse effects of past solid waste management services within the service area. Since 1999, HWMA has become involved in the operation of a large volume municipal solid waste transfer station, the management and marketing of recyclable materials, the regional collection of household hazardous waste and the composting of green waste.

## Purpose

This Humboldt Waste Management Authority Strategic Plan (Strategic Plan) is intended to provide HWMA with a framework to guide the development, implementation and management of new and existing programs and facilities over the next ten years (2013-2023). Actual implementation of the Strategic Plan will be further predicated on the capacity of staff, funding, and the specific priorities as determined by the HWMA Board of Directors (Board). As part of the Strategic Plan implementation, the Board should request HWMA staff to provide periodic updates of specific strategies as presented in the Strategic Plan.

## Strategic Planning Process

In September of 2011 the Board authorized a Board Subcommittee to work with HWMA staff to hold a Strategic Planning public workshop. The workshop was held in November of 2011 with the objective of soliciting public input regarding Strategic Plan needs assessment design, stakeholder groups, and qualifications to be included in the request for proposals (RFP) for consulting services.

On February 10, 2012 HWMA issued the RFP for consulting services in the preparation of the Strategic Plan. The Board selected R3 Consulting Group, Inc. (R3) on April 14, 2012.

To begin the Strategic Planning process, R3 reviewed background information, provided by HWMA, to document Existing Conditions (Appendix A). An Additional Diversion Potential Analysis was then prepared based on available HWMA and Member Agency diversion and disposal tonnages and waste composition data (Appendix B).

In August of 2012, R3 met with the HWMA Board to discuss the current role of HWMA and possible roles HWMA may assume in the future. At that time, options regarding the formation of a Planning Advisory Committee (PAC) were also presented. During a regular HWMA Board meeting in October 2012, Board members appointed members of the public to serve on the PAC and agreed that the role of the PAC would be to review and comment on policy documents.

On October 29, 2012, a Board study session was held so R3 could present a list of seven preliminary policy options that were developed based on analysis of current

HWMA conditions. The Board approved and directed R3 to further expand upon the seven policies and to seek input from the PAC. The first PAC meeting was held on October 30, 2012, with the objectives of: (1) providing background information to the PAC on HWMA, the Strategic Planning process, and the role of PAC members; and (2) introducing the seven preliminary policy options. Stakeholder meetings with Member Agency staff and franchise haulers were also held during this time.

The second PAC meeting was held on December 4, 2012 to present and discuss two of the seven policy options. At that time, the PAC provided comments and approved the presented options. Additionally, R3 and HWMA staff met with Member Agency staff to discuss the two policies.

A series of four community workshops were also held in early December 2012 to provide information about HWMA and the Strategic Planning process and to solicit input regarding HWMA, its services, and options for future HWMA activities.

On February 13, 2013, the third PAC meeting was held to present the remaining five policy options. At that time, PAC members provided comments and approved the presented options.

Following the third PAC meeting, R3 and HWMA staff incorporated PAC comments into the draft policies and developed the preliminary draft Strategic Plan which was presented to the PAC in March 2013. R3 again received comments from the PAC and revised the preliminary Draft Strategic Plan.

Documents and presentations produced during the community workshops and PAC meetings are provided in the Needs

Assessment (Appendix C) and Board presentations produced during the Strategic Planning process are provided in Appendix D.

## Data Sources

Information presented in the Strategic Plan was based on data provided by HWMA, Member Agencies, CalRecycle staff, franchised haulers, and obtained through previous studies conducted by R3 and through internet research. Data sources include the following:

- CalRecycle's disposal reporting system (DRS) was used to obtain jurisdiction diversion rates;
- 2012 Waste Characterization Study performed by Cascadia Consulting Group for HWMA;
- HWMA's organizational information, including:
  - Joint Powers Agreement;
  - HWMA budget and fee resolutions for fiscal years 2005/06 through 2012/13; and
  - HWMA organization and staff chart dated January 2012.
- Existing HWMA contracts, including contracts related to the following:
  - HWMA service contracts for broadcasting, accounting, health insurance, property lease, consulting, legal, and networking services;
  - Facility operation;
  - Compost and green waste;
  - Disposal and transportation;

- Recycling processing and transportation;
- Member Agency services; and
- Waste diversion programs.
- Member Agency information including:
  - Collection franchise agreements and amendments;
  - Solid waste ordinances;
  - Franchised collection service information;
  - Franchised account information; and
  - Population data.
- Previous strategic planning documents including:
  - Draft strategic plans;
  - Presentations; and
  - Staff reports.
- Disposal data and, where available, diversion data, including:
  - Franchised hauler disposal reports, and when available, diversion reports; and
  - Hawthorne Street Transfer Station facility disposal and diversion data.
- Related news articles; and
- Public input received from letters and oral comments at meetings and workshops.

## Limitations

Information presented in this report is based on data collected from a variety of sources, including HWMA and Member Agencies and their franchised haulers. This study was limited to the quality and quantity of information that was available to R3.

## Background

Humboldt County is located on the coast of northern California, approximately 200 miles north of San Francisco.

Geographically, Humboldt County encompasses 2.3 million acres, 80 percent of which is comprised of forestlands, protected redwood and recreation areas, with bay lands and coastal communities compromising the remaining 20 percent. The total population of Humboldt County is 134,623<sup>1</sup>, with seven incorporated cities ranging in population from approximately 300 to 30,000 persons. Approximately half of Humboldt County's residents live in incorporated communities and 59 percent of Humboldt County's population lives in the area surrounding Humboldt Bay and Eel River Valley.

HWMA's six Member Agencies include the Unincorporated County and five of the seven incorporated communities in Humboldt County: Arcata, Blue Lake, Eureka, Ferndale, and Rio Dell. The remaining two incorporated communities, Trinidad and Fortuna, are not members of HWMA as of early 2013.

Using 2011 CalRecycle-reported diversion rates for HWMA Member Agencies, the

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<sup>1</sup> 2010 U.S. Census Data

combined HWMA Member Agency regional diversion rate was 69 percent.<sup>2</sup> Five of the six Member Agencies are currently in compliance with AB 939 diversion requirements (i.e., 50 percent or greater diversion of solid waste from landfills).

HWMA and Member Agencies have separate and distinct roles with regards to the solid waste system in Humboldt County. These individual roles are discussed below.

## HWMA Role

HWMA was formed in 1999 as a Joint Power of Authority (JPA) entity under provisions established by California Government Code Section 6500. A JPA is a legal agreement between two or more jurisdictions to provide specific governmental services. The purpose of HWMA is to provide economic coordination of solid waste management services and efficiently and fairly assure against potential adverse effects of past solid waste management services within the service area.

HWMA owns and operates the Hawthorne Street Transfer Station, contracts for the disposal of Member Agencies' solid waste, and provides a variety of other services to its Member Agencies. In addition, HWMA owns Cummings Road Landfill which is currently in the process of closure.

HWMA's Fiscal Year 2012-2013 budget was \$8,770,203, and HWMA employs 38 staff members whose functions include administration, finance, scale operation,



Hawthorne Street Transfer Station

transfer station operation, household hazardous waste (HHW) processing, recycling, and landfill maintenance. Revenues are generated primarily through solid waste tipping fees that are charged at HWMA's Hawthorne Street Transfer Station.

HWMA is separate and distinct from Member Agencies, which are indemnified from legal action taken against HWMA.

The role of HWMA is defined through the JPA agreement (JPA Agreement) and policies adopted by the Board. Each Member Agency designates one Director on the Board to represent their agency and each Director is allowed one vote on all matters presented to the Board. The vote of a majority constitutes an act of the Board in most matters.

An overview of the responsibilities of HWMA is provided below, with additional details available in Appendix A-Existing Conditions.

<sup>2</sup> Should other entities, including Trinidad or Fortuna, be included in the regional diversion target, this cumulative diversion rate would be changed.

## Disposal

In accordance with the JPA, HWMA is given flow control<sup>3</sup> of its six Member Agencies' solid waste. Member Agencies' solid waste is delivered to two out-of-county landfills: Anderson Landfill in Anderson, CA and the Dry Creek Landfill in Medford, OR. HWMA contracts directly with Anderson Landfill for disposal through an agreement that is set to expire on June 1, 2014. With regards to Dry Creek Landfill, Bettendorf Enterprises (HWMA's contracted solid waste transporter) and Dry Creek Landfill have entered into a disposal agreement. A separate agreement exists between HWMA and Dry Creek Landfill, requiring Dry Creek Landfill to reserve sufficient solid waste disposal capacity for HWMA. Both agreements expire November 1, 2016.



Cummings Road Landfill  
(in closure process)

## Cummings Road Landfill

HWMA owns the Cummings Road Landfill, located outside the city limits of Eureka. This facility stopped receiving waste in

<sup>3</sup> Under the JPA Agreement, Member Agencies must contractually require that franchised haulers deliver all solid waste to the HWMA's directed landfill or transfer stations.

2000. The landfill is undergoing a two-phased closure process, estimated to cost \$7 million, which began in the summer of 2012. Following closure, HWMA will be required to conduct ongoing post-closure maintenance and monitoring activities for 30 years.

## Hawthorne Street Transfer Station

HWMA owns and operates the Hawthorne Street Transfer Station located in Eureka, CA. The transfer station is open to private garbage haulers, commercial businesses and the public. Over 80 percent of Humboldt County's waste passes through the transfer station and, while some materials are recovered from the self-haul tip floor, HWMA does not mechanically process any loads to recover materials.

Also on-site at Hawthorne Street is the Eureka Recycling Center, HHW facility, and a green waste drop-off site. Activities of the facility are funded primarily through tip fee revenue, as well as CRV and grant program funding.

## Household Hazardous Waste

HWMA's HHW program consists of the operation of the permanent HHW facility located at the Hawthorne Street Transfer Station, the organization and operation of mobile HHW collection events, hazardous waste grant management, and staffing of a HHW hotline. In addition, with coordination and funding from HWMA, several facilities in Humboldt County collect a combination of universal waste, including household batteries, fluorescent lights, electronic waste, and medical sharps from the public. These materials are then either shipped directly to recyclers or transported to the

HHW facility by either the collection facility's staff or HWMA staff.

### Recycling Center

Recyclable materials may be dropped off at the Eureka Recycling Center, located at the Hawthorne Street Transfer Station. White goods<sup>4</sup> taken to the recycling center are charged a tip fee to offset handling of the materials and electronic waste is charged a small fee; some costs are supported by HWMA tipping fees. A buy-back center for California Redemption Value (CRV) bottles and cans is also on site.

HWMA currently has an agreement with Solid Wastes of Willits (SWOW) for the loading, transportation, processing and marketing of recyclable materials from the Hawthorne Street Transfer Station. This five-year agreement expires September 5, 2016, with an optional two-year extension available if mutually agreed to by both parties. In addition, a Memorandum of Understanding (MOU) was adopted in June 2011 and approved between HWMA, the City of Eureka, and the County of Humboldt that requires Eureka and the County<sup>5</sup> to direct their franchised haulers to deliver recyclable materials to the Hawthorne Street Transfer Station. Any other Member Agency is able to sign onto the MOU with approval of their respective council.

### Mad River Compost Facility

The Mad River Compost Facility, located on West End Road outside the city limits of

<sup>4</sup> A white good refers to a major domestic appliance such as a refrigerator or dish washer.

<sup>5</sup> Due to the Unincorporated County's multiple collection franchise agreements, only certain haulers are directed to deliver recyclable materials to Hawthorne Street Transfer Station.



CRV Buy-Back at the Eureka Recycling Center

Arcata, CA, is managed by HWMA under a service agreement. Mad River Compost Facility is permitted to receive green materials only, and approximately 5,000 tons of green waste is delivered annually to the facility. The green waste is then processed by Mad River Hardwoods Inc. through a service agreement with HWMA that automatically renews on June 30, 2013 for a seven-year term.

### Additional Services

HWMA also provides a number of additional services to Member Agencies and the community, including:

- **CalRecycle Grants.** HWMA was awarded and currently administers a tire recycling grant, used oil recycling grant, and beverage container recycling grant.
- **Food Waste Diversion Pilot.** This pilot includes the collection of food waste from commercial producers within the City of Eureka and Humboldt State University in Arcata. HWMA was awarded a Federal Environmental Protection Agency (EPA) grant for the pilot collection period.

- **Anaerobic Digestion (AD) Treatment System Project.** HWMA is currently working with the City of Eureka to site an AD treatment system on city property next to the community wastewater treatment plant. The AD system would be used to divert food waste and other discarded organic material from the landfill, while reducing methane emissions, and convert it into renewable energy and fertilizer through anaerobic digestion.
- **AB 939 Disposal Reporting<sup>6</sup>.** On a quarterly basis, HWMA staff collects disposal tonnage data from transfer stations located in Humboldt County and from the out-of-county landfills that receive Humboldt County's solid waste. HWMA then aggregates the data and allocates a portion to the Unincorporated County and to each of the seven cities located in Humboldt County.
- **Extended Producer Responsibility (EPR)/ Product Stewardship Initiatives.** HWMA is a member of California Product Stewardship Council (CPSC)<sup>7</sup> and has also implemented paint and carpet product stewardship initiatives.
- **Public Education.** HWMA conducts public outreach to educate the public on services that HWMA

<sup>6</sup> AB 939 refers to the California Integrated Waste Management Act of 1989, which mandates 50 percent diversion of waste from landfill disposal for each California jurisdiction.

<sup>7</sup> CPSC is the main lobbying agency in California for EPR initiatives and has been instrumental in the passing of two EPR bills in California that target end-of-life management for paint and carpet.

provides and select diversion services provided by other entities. Educational materials produced by HWMA include: a "green pages" recycling guide in local phone books; brochures on proper waste disposal for hazardous wastes, oil, medical sharps, and pharmaceuticals; publicity of hazardous waste collection events and drop off sites using T.V., radio, print advertisements, public service announcements, and radio and TV interviews; and the HWMA website. Additionally, HWMA administers grant funds to provide K-12 classroom education on waste reduction, reuse, recycling and composting.

- **Recycling Marketing Development Zone.** This program combines recycling with economic development to fuel new businesses and expand existing ones. HWMA supports program activities that include loans and technical assistance to businesses that use materials from the waste stream to manufacture their products.

## Member Agency Roles

Each of the six Member Agencies has one appointed representative on the HWMA Board. Additional Member Agency roles include the following:

- Administer franchise agreements with solid waste collection service providers in their jurisdiction and approve collection rates that are charged to local residents and businesses;

- Decide what franchised collection services are offered;
- Conduct AB 939 state diversion reporting (excludes Unincorporated County and Eureka who contract with HWMA to perform this function);
- Adopt and enforce ordinances; and
- Implement programs and associated education, unless the Member Agency seeks HWMA's assistance.

## Strategic Plan Implementation

This section of the Strategic Plan contains the main components for implementation. The mission and vision statements provide guidance for the strategic areas of focus and strategies discussed below.

Further background information is provided in *Appendix A-Existing Conditions*, *Appendix B-Potential Diversion Analysis*, *Appendix C-Needs Analysis*, and *Appendix D-Board Presentations*.

### Mission and Vision

#### Mission:

*The mission of HWMA is to implement a sustainable regional materials management system in order to protect and preserve the social, environmental and economic health of our community by supporting, developing and/or promoting policies, programs and facilities that cost effectively eliminate solid waste generation, reduce disposal and increase diversion to achieve a state-reported diversion rate of 75*

*percent and a 15,000 ton reduction in landfilled materials by 2020.*

#### Vision:

The following vision statements will guide support of HWMA's mission:

- Support regional processing of source separated recyclables;
- Increase cost effective diversion from landfill at HWMA owned, operated, or managed facilities;
- Secure cost effective long-term disposal capacity;
- Continue/expand HWMA programs that promote waste reduction and diversion;
- Provide program support to HWMA Member Agencies; and
- Manage HWMA facilities and programs in a financially sustainable manner.

### Areas of Focus

The strategies that comprise the Strategic Plan can be separated into four areas of focus:

1. Infrastructure – solid waste or waste diversion facilities
2. HWMA Programs – programs directly operated by HWMA
3. Support Programs – HWMA support of Member Agency programs
4. Funding – sustainable funding of HWMA programs

There are 17 strategies associated with the four focus areas. The strategies are prioritized as follows:

- Phase I contains strategies that should be put in place immediately to be completed by 2014;
- Phase II contains strategies that should be put in place in the intermediate term to be completed by 2018; and
- Phase III contains strategies that should be put in place in the long-term to be completed by 2023.

While the phases are prioritized by date of completion, the strategies listed within

each phase are not. Instead, in most cases, the strategies are listed in the order that the corresponding policy was presented to the PAC. Accordingly, HWMA Board and staff will need to prioritize the strategies listed based on available resources.

Table 1 lists the 17 strategies discussed below and the corresponding policy document located in Appendix C. The policy documents were reviewed by PAC prior to the drafting of the Strategic Plan and contain additional information and analysis.

*Please note implementation is contingent upon resources available to pursue these strategies, including staff capacity and funding.*

<b>Table 1 List of Strategies and Focus Areas by Phase</b>		
<b>Phase and Strategy</b>	<b>Focus Area</b>	<b>Corresponding Policy (Appendix C)</b>
<b>Phase I: Immediate ( Completed by 2014)</b>		
Strategy 1.1 Secure long-term disposal capacity	Infrastructure	Policy 2
Strategy 1.2 Work with Member Agencies to procure regional source-separated recyclables processing capacity	Infrastructure	Policy 3
Strategy 1.3 Evaluate development of the anaerobic digestion treatment system project	Infrastructure	Policy 7.D
Strategy 1.4 Renegotiate contracts related to Mad River Compost Facility	Infrastructure	Policy 7.G
Strategy 1.5 Increase tip-floor diversion operations	HWMA Program	Policy 4
Strategy 1.6 Examine food waste diversion pilot program	Support Program	Policy 7. C

<b>Table 1 List of Strategies and Focus Areas by Phase</b>		
<b>Phase and Strategy</b>	<b>Focus Area</b>	<b>Corresponding Policy (Appendix C)</b>
Strategy 1.7 Explore developing permitted organic composting capacity	Infrastructure	<i>*developed as a result of PAC discussion of Policy 7.G</i>
Strategy 1.8 Set a regional diversion target of 75%	Support Program	Policy 1
Strategy 1.9 Assume regional reporting responsibilities	Support Program	Policy 6
<b>Phase II: Intermediate (Completed by 2018)</b>		
Strategy 2.1 Expand satellite universal hazardous waste collections	HWMA Program	Policy 7.H
Strategy 2.2 Promote material reuse at Hawthorne Street Transfer Station	HWMA Program	Policy 7.J
Strategy 2.3 Conduct annual survey of Member Agency services	Support Program	Policy 7.K
Strategy 2.4 Compile franchised haulers' diversion reports	Support Program	Policy 7.L
Strategy 2.5 Develop model policy documents for Member Agencies	Support Program	Policy 7.N
Strategy 2.6 Expand public education	Support Program	Policy 7.I
Strategy 2.7 Transition to self-funded programs	Funding	Policy 5
<b>Phase III: Long-Term (Completed by 2023)</b>		
Strategy 3.1 Develop mixed waste processing capacity, if economically feasible	Infrastructure	Policy 4

## Phase I: Immediate Strategies (Completed by 2014)

Phase I contains strategies that should be put in place by HWMA within the next two years. Many of the strategies in Phase I serve as building blocks for the remaining phases; accordingly, HWMA should begin to plan for the implementation of Phase II strategies during this time as well.

### Strategy 1.1: Secure Long-term Disposal Capacity

#### Description

HWMA has less than sixteen months (as of March 2013) of disposal capacity assurance remaining under contract with Anderson Landfill and less than four years of disposal capacity assurance remaining under contract with Dry Creek Landfill. As Anderson Landfill currently receives the majority of Member Agencies' solid waste, there is a need to secure adequate and reliable disposal capacity for future needs.

The selection of disposal facility(ies) should be based on the best value at the lowest monetary and environmental cost to HWMA and its stakeholders. This should be accomplished through an open competition Request for Proposal (RFP) process. The RFP can be designed to allow for the option of either: (a) a separate disposal contract; or (b) a combined disposal and transportation contract.

HWMA should not include any minimum tonnage delivery requirements ("put-or-pay") in future disposal contracts, as such requirements would put HWMA at risk for

paying on non-delivered tonnage should disposal tonnages be reduced through the implementation of new regional diversion programs or policies. HWMA should include the ability to direct disposal tonnage to one or more disposal sites based on costs, distance, and road conditions. A minimum of 10 years of disposal tonnage capacity should be secured no later than March 1, 2014.

#### Implementation Steps

HWMA has begun the process of procuring future disposal capacity. A Request for Qualifications for Municipal Solid Waste Management Consulting Services to Assist with Procurement of Landfill Disposal Contracts was issued by HWMA on February 15, 2013.

HWMA anticipates issuing a disposal RFP August 2013, and selecting the disposal site(s) by March, 2014.

#### Challenges

Challenges include negotiating cost effective extensions to existing contracts or securing new contracts, both for landfill capacity and for long-distance transportation from Humboldt County to an out-of-county location or locations.

#### Potential Costs

Costs will depend on the terms and conditions of extended or new contracts, and future costs may increase over current costs due to increased transportation costs and decreasing disposal tonnage.

## Strategy 1.2: Work with Member Agencies to Procure Regional Source-Separated Recyclables<sup>8</sup> Processing Capacity

### Description

While HWMA currently has available recyclable materials processing capacity through its processing agreement with SWOW, local long-term options to procure required processing capacity are preferable for the following reasons:

- The current agreement with SWOW was intended by HWMA to be an interim processing solution and is set to expire September 5, 2016;
- A long-term commitment could facilitate the development or expansion of local recyclable processing infrastructure;
- A long-term local commitment could aid in creating local jobs, with additional benefits to the local economy (e.g., local suppliers, local markets, etc.); and
- A long-term commitment could result in stable and predictable low-cost processing.

The inclusion of additional Member Agencies' recycling tonnage in the procurement may result in increased services at a lower cost, due to economies of scale.

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<sup>8</sup> "Source-separated recyclables" refers to recyclable materials that are collected separately (either single or dual-stream) from trash and/or organic materials.

### Implementation

1. HWMA should continue to work with its Member Agencies to include source separated recyclables collected from Arcata, Blue Lake and northern Unincorporated County in the current MOU. Each Member Agency could be asked to direct its franchised source-separated recyclables to the facility(ies) chosen as a result of a competitive procurement process.
2. HWMA should develop and issue an RFP and conduct a competitive procurement process for regional source-separated recyclables processing capacity:
  - a. The RFP should be structured to provide options for private ownership and operations, or public ownership and private operations and in-county or out-of-county facility locations.<sup>9</sup> A contract would govern specific operational requirements (processing single stream, dual stream, or both) and would specify allowable costs regardless of ownership.
  - b. In addition to traditional evaluation criteria for qualifications, technical feasibility and costs, the RFP should also include evaluation criteria that promotes in-county facility(ies), in-

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<sup>9</sup> During the February 13, 2013 PAC meeting, the need for securing source separated processing capacity also included a discussion on the potential of including an option for mixed waste processing as part of an RFP process; however, because of cost, the necessity of conducting an economic and technical feasibility study, and long lead time necessary to develop a mixed waste processing facility, the potential need for mixed waste processing was left a separate long-term strategy (Strategy 3.1).

- county job creation, and in-county use of processed recyclables.
- c. The option for public or private ownership should be determined based on the outcome of the RFP process.
3. The formal RFP process could begin in late 2013 with a completion date of August 2014.<sup>10</sup> This would require a new MOU to be finalized prior to the issuance of the RFP. The schedule would provide approximately 24 months for an existing in-county facility(ies) to be modified as may be needed, or a new facility to be built, and would also allow the current agreement with SWOW to be extended if additional time is needed to complete the RFP process or if results from the RFP process are not acceptable.

### Challenges

- The Member Agencies participating in the RFP process should agree on and adopt a new MOU committing their source-separated recyclables as a pre-condition to the release of the RFP.
- Agreement and weighting of the evaluation criteria may require significant discussion by the Member Agencies.
- Accurately reported current and projected tonnages of source separated recyclables by point-of-origin will be necessary to promote

the most cost-effective processing capacity.

- The location of a facility(ies) will greatly affect transportation costs (transfer or direct haul) as part of any tip fee cost.

### Potential Costs

The cost to conduct an RFP process could range from \$80,000 - \$150,000 depending on the role of HWMA staff, Member Agencies' staff, any required outside experts, and the amount of time required to present the RFP and results to Member Agencies.

A long-term commitment by the Member Agencies for in-county source-separated processing facility(ies) could result in stable competitive costs for processing.

## Strategy 1.3: Evaluate Development of the Anaerobic Digestion Treatment System Project

### Description

In September of 2012, HWMA released an RFP for Professional Design Services for the Development, Installation, Start-up, and Commissioning of an Anaerobic Digestion System. Following the results of the RFP solicitation, HWMA intends to release a separate RFP for the remaining design and construction of the plant (i.e. non-digester facility components).

HWMA should continue with the AD treatment system RFP process. Once proposals are received and reviewed, a recommendation should be presented to the Board for appropriate direction.

<sup>10</sup> Staff from several of the Member Agencies have held preliminary discussions regarding regional recyclables tonnages and a RFP process.



HWMA's Pilot Food Waste Diversion  
Program Logo

### Implementation

1. Following the receipt of proposals in response to the HWMA's solicitation, HWMA will need to develop a proposed implementation schedule and conduct a cost/benefit analysis associated with the development of the requested facility. The cost/benefit analysis could include, for example, an estimation of the total capital and operating costs of the entire facility (not just the AD system that is in the current RFP), an estimation of what the tip fee at the AD facility will be, and an estimation of its impact on collection rates for local businesses/residents.
  2. HWMA will need to secure control of desired feedstock from the waste stream. This will require significant effort by HWMA and Member Agencies.
  3. HWMA will need to work with the City of Eureka to secure facility and permitting control over the project site or select an alternate site. Permitting will need to be completed.
  4. HWMA will need to examine cost-efficient local curbside collection strategies in the context of existing solid waste and recyclable materials collection and infrastructure.
5. HWMA will need to incorporate the results of the cost / benefit analysis in Step 1 and the examination of cost-effective collection strategies in Step 4 to determine an overall customer rate that includes both collection costs and the tip fees necessary to fund the capital and operating costs of the digester.
  6. After determining costs/benefits, and in consideration of existing debt and future HWMA facility planning needs, the Board and Member Agencies will need to determine the most appropriate financing strategy.
  7. Based upon the results of the previous steps, the Board and Member Agencies will need to make a final determination on project implementation.
  8. Should HWMA and Member Agencies decide to move forward with the project, a significant amount of outreach and education will need to be conducted by appropriate parties in order to gain public participation and maintain low levels of contamination.

### Challenges

- Developing cost effective collection and processing capacity.
- Securing control of necessary feedstock from Member Agencies' source separated food and organics streams, which are not controlled by HWMA, and will require Member Agency cooperation and coordination to obtain.
- Securing other potential feed stocks for the AD including fats, oils, and grease (FOG) from commercial grease traps, fish processing waste,

and cheese whey, of which HWMA does not have flow control over.

- Funding the project's capital and ongoing program costs.

### Potential Costs

HWMA will incur capital improvement costs associated with design, construction, and operations of this project.

## Strategy 1.4: Renegotiate Contracts Related to Mad River Compost Facility

### Description

HWMA should continue managing the Mad River Compost Facility, through a service agreement with a third party. The facility is established, is presently serving the community's needs, and is adequately funded.

The current processing agreement at Mad River Compost Facility will automatically renew for seven years on July 1, 2013; HWMA staff plan to begin negotiations for the extension in early 2013. The series of agreements relating to the operation of the drop-off facility and transfer also expire in 2013 (with no provisions for automatic extension), and HWMA should begin to renegotiate and/or extend these agreements.



Mad River Compost Facility

### Implementation Steps

HWMA should immediately begin the process of negotiating the current series of agreements set to expire later this year.

### Challenges

- Negotiating cost effective extensions to existing contracts.
- Under the current contractual agreement, sending green material to local biomass plants as fuel is less costly than composting the green material. Due to this fact, some of HWMA's Member Agencies have recently routed their curbside green waste away from composting facilities to biomass facilities. At the same time, two local biomass facilities recently suspended their acceptance of green waste from curbside programs due to cost considerations and environmental regulations. If biomass facilities begin accepting curbside green waste again, feedstock limitations may increase the cost or change the viability of the composting operations.

### Potential Costs

Costs will depend on the terms and conditions of extended or new contracts.

## Strategy 1.5: Increase Tip-Floor Diversion Operations

### Description

As a first step, increasing existing floor-sorting diversions is the simplest and most immediate way to increase diversion of materials at Hawthorne Street Transfer

Station. HWMA staff currently observes self-haul customer loads. These staff members also recover limited materials from those loads and could be directed to increase the amount of sorting that is occurring physically on the floor.

### Implementation

1. HWMA should take immediate steps to increase the recovery of materials from self-haul loads and debris box loads. This includes modifying the duties and responsibilities of staff to focus first on recovery of materials. Debris box loads with targeted materials (e.g. metal, wood, cardboard-rich) should be dumped in a dedicated area separate from mixed loads to allow for the recovery of material from those loads (as time permits). Self-hauled loads of targeted materials should not be transferred for disposal until all targeted materials have been recovered or are moved to a dedicated area for further sorting. HWMA should consider conducting an examination of current staff levels to evaluate whether current levels are appropriate when increasing recovery by staff.
2. HWMA should then consider the purchase and installation of a (portable) mechanical sort line targeting un-compacted loads. Implementing and staffing a low-tech portable mechanical sorting line is perhaps the most immediate and most cost effective step HWMA can take to increase diversion mechanically.

### Potential Costs

The cost of floor-sort recovery operations is estimated to be in the low to moderate

range of \$0 to \$100 per ton, dependent, in part, on any off-set in material sales revenues and avoided disposal costs. Additionally, this estimated cost depends largely on the extent to which the facility would need to be redesigned and any associated capital costs, including the purchase of a mechanical sort line.



Tip Floor at Hawthorne Street Transfer Station

## Strategy 1.6: Examine Food Waste Diversion Pilot Program

### Description

The pilot collection program is a tool to gather data about food waste collection logistics and its associated costs. HWMA should continue the food waste diversion pilot program through the end of 2013, at which time the Board will need to consider and provide appropriate direction on establishing a permanent program.

### Implementation

1. Complete remaining funded work, including modeling cost efficient collection strategies and exploring education techniques to promote food waste diversion and minimize contamination.

2. Seek direction from the Board as to whether to establish a permanent program following the end of funded work, based on operational and cost data.
3. If directed by the Board, develop a rate schedule to support the permanent program.

### Challenges

Providing cost effective collection and processing capacity for this material.

### Potential Costs

The program is funded by an EPA grant and HWMA fund-match into 2014. Future costs depend on Board direction to establish a permanent program, the chosen processing method, and the associated fee rate schedule.

## Strategy 1.7: Explore Developing Permitted Organic Composting Capacity

### Description

HWMA should explore opportunities for developing permitted organic composting capacity (yard waste, food waste, and other organics) as a potential complement or alternative to anaerobic digestion, or as an interim solution while the anaerobic digester strategy is developed. One possibility is that the Mad River Compost Facility could be re-permitted to accept other organic materials (e.g., food wastes, manure, digested residuals, etc.), which it is currently not permitted to accept.

## Implementation

Conduct a study on the feasibility of developing permitted organic composting capacity (yard waste, food waste and other organics) at the Mad River Compost Facility, or other suitable locations in Humboldt County.

### Challenges

- Permitting challenges will exist if food waste or other compostable materials are to be accepted at the current location.
- Real or perceived NIMBY (not-in-my-back-yard) issues related to odors or vermin.
- Space constraints at Mad River Composting Facility.

### Potential Costs

If other organics, such as food waste, are to be processed at the Mad River Compost Facility, the facilities operating permit will need to be modified and facility upgrades will be required.

## Strategy 1.8: Set a Regional Diversion Target of 75%

### Description

HWMA should set a regional diversion target of 75 percent. The 2011 CalRecycle-reported disposal tonnage and preliminary diversion rates for each Member Agency can be used to calculate an HWMA regional diversion rate of 69.24 percent.

Setting a diversion target: (1) demonstrates a commitment to the recovery of materials from the solid waste stream by serving as a numerical expression of that commitment;

and (2) assists in the coordination of regional waste management programs. Progress toward the regional diversion target could then be measured and documented, with modifications being made to regional programs if progress is unsatisfactory. Without this measurement system, HWMA and Member Agencies would be unable to accurately assess the results of regional diversion programs.

Additionally, CalRecycle’s potential revisions to calculating state-required diversion may negatively impact individual HWMA jurisdictions’ diversion rates, increasing the need for regional diversion programs and a pooling of Member Agency resources.

**Implementation**

1. HWMA and Member Agencies could establish a regional diversion target by using the preliminary calculated regional diversion rate of 69.24 percent to calculate the reduction in disposal that would need to be achieved in order to align itself with the state-wide 75 percent recycling goal. As shown in Table 2, by measuring progress based on the calculated 2011 preliminary CalRecycle regional diversion rate, HWMA would need to collectively reduce disposal by an additional 14,802 tons to reach a 75 percent diversion rate by 2020.

<b>Table 2 HWMA 75 Percent Diversion Calculation</b>			
	<b>2011</b>	<b>2020</b>	<b>Difference</b>
Tons Diverted <sup>11</sup>	178,039	192,841	+14,802
Tons Disposed <sup>12</sup>	79,082	64,280	-14,802
Tons Generated	257,121	257,121	
Diversion Rate	69.24 %	75%	5.76%

Other than the original purpose statement in the 1999 JPA Agreement, HWMA does not currently have a mission statement. We recommend HWMA develop and adopt the mission statement developed as part of this Strategic Plan, including the regional diversion target. Each Member Agency should also adopt the same diversion target within the scope of their individual material collection and processing systems, as HWMA is reliant upon Member Agencies’ cooperation and coordination to meet the 75 percent diversion rate target.

2. As a result of the proposal that the HWMA use a “regional” diversion rate in the implementation steps above, this policy will be most effective if implemented in conjunction with the transitioning of HWMA to assume regional reporting responsibilities (See Strategy 1.9).
3. HWMA should measure progress of the regional diversion target in conjunction with CalRecycle reporting requirements. HWMA responsibilities could include Regional Agency disposal reporting,

<sup>11</sup> Numbers based on 1991 CalRecycle diversion baseline.

<sup>12</sup> Numbers based on annual disposal reports from Humboldt County transfer stations and waste generators.

compiling and analyzing tonnage information reported to CalRecycle, and issuing annual reports to Member Agencies. Individual Member Agency diversion rates would continue to be tracked.

### Challenges

A regional diversion target will be challenging to achieve without an increase of coordinated solid waste diversion efforts. Member Agency franchise services, policies, facilities, and financial strategies should all be realigned, where appropriate, to support diversion efforts.

### Potential Costs

Costs include HWMA and Member Agency staff time devoted to the adoption of the regional diversion target (e.g., passing ordinances). HWMA staff time will also be spent reporting progress to Member Agencies.

This policy alternative would need further review of costs. The full range of costs and benefits has not yet been identified.

## Strategy 1.9: Assume Regional Reporting Responsibilities

### Description

With approval from Member Agencies, HWMA should assume regional reporting responsibilities on behalf of its Member Agencies. If HWMA were to take on regional reporting responsibilities by becoming a “Regional Agency” in accordance with California Public Resources Code Section 40970, the following benefits could be provided:

- 50 Percent Diversion Mandate: Member Agencies with lower diversion rates would benefit, as a regional, cumulative diversion rate would be higher than their individual rates. Individual Member Agency tonnage “spikes” would also be smoothed (smaller jurisdictions are particularly affected by this now).
- Planning Documents: Member Agency staff time may be decreased, as this would eliminate the need for revisions to individual jurisdiction waste management plan elements (i.e., Source Reduction and Recycling Element, Household Hazardous Waste Element, and Non-Disposal Facility Element).
- Quarterly Disposal Report: Quarterly disposal report accuracy may increase by eliminating any current disposal misallocations to individual jurisdictions.
- AB 939 Annual Report: HWMA would be responsible for issuing a single AB 939 Annual Report to CalRecycle, eliminating the need for individual Member Agencies to report independently.

### Implementation

1. Revise JPA Agreement to meet the following Regional Agency Agreement requirements:
  - a. A listing of Member Agencies and a description of HWMA;
  - b. A description of the methods by which any civil penalties imposed by CalRecycle will be allocated among the Member Agencies;

- c. A contingency plan that shows how each Member Agency will comply with state planning and waste diversion requirements in the event that HWMA's "Regional Agency" status is dissolved;
  - d. A description of the duties and responsibilities of each Member Agency, demonstrating that each given Member Agency will comply with the planning and waste diversion requirements; and
  - e. A description of source reduction, recycling and composting programs to be implemented by the Regional Agency.
2. Member Agencies will need to approve the JPA Agreement on an individual basis by taking the agreement to their councils for consideration.
  3. The Regional Agency Agreement should be submitted to CalRecycle following adoption by all Member Agencies. HWMA may assume regional reporting responsibilities once CalRecycle approval is granted.

### Challenges

- Each Member Agency's governing body would need to agree to this policy before implementation occurs.
- Addressing penalty concerns for Member Agencies with high diversion rates.

### Potential Costs

Initially, there would be costs associated with becoming a Regional Agency. These costs would include additional Member

Agency and HWMA staff time and legal review as a result of amending the JPA Agreement. Following CalRecycle approval, however, the Member Agencies could expect to see decreased staff time associated with reporting. HWMA, on the other hand, could expect to see an increase in costs associated with preparing the AB 939 Electronic Annual Report on behalf of all participating Member Agencies.

This policy alternative would require further review, as the full range of costs and benefits has not yet been examined.

## Phase II: Intermediate Strategies (Completed by 2018)

Phase II contains strategies that should be put in place by HWMA by 2018. However, HWMA may choose to begin implementing these strategies in the near term as well.

### Strategy 2.1: Expand the Satellite Universal Hazardous Waste Collections

#### Description

HWMA could expand satellite drop-offs by recruiting additional retail participants to serve as satellite collection centers, if expansion is able to be adequately funded. HWMA staff has expressed that by locating satellite collection centers closer to the public (as opposed to asking the public to drive to Eureka for monthly HHW collection events at Hawthorne Street Transfer Station), a greater amount of universal waste would be collected for proper disposal and less would be mixed with the

municipal solid waste stream and illegally disposed.

### Implementation

1. Analyze sustainable funding to determine if expansion is feasible.
2. Receive Board direction.
3. Provide outreach to retailers in underserved areas to recruit additional participants.

### Challenges

Challenges include addressing the use of this program's services by residents and businesses of non-Member Agencies that do not contribute to program funding. It is difficult to monitor users of the program at drop off sites. Revenue contributions from non-member agencies (i.e. Fortuna and Trinidad residents, tribal entities) could help cover the costs of broad participation.

### Potential Costs

Expanding the number of satellite retail participants could incur greater HWMA staff and transportation costs. However, price comparisons indicate that utilizing HWMA staff to collect these materials could be more cost efficient than retailers' direct shipping of materials through other vendors. If expanding the number of satellite collection centers is considered, this possibility should be explored as a way to reduce costs. Additional funding alternatives, such as grants or cost-shares with non-member agencies, should also be explored. As more materials are banned from landfills, a strong foundation in establishing u-waste collection programs will help keep start-up costs low for new diversion programs. New funding

mechanisms such as charging the public at drop off sites, or implementing a generator fee, should also be explored with expanded service.

## Strategy 2.2: Promote Material Reuse at Hawthorne Street Transfer Station

### Description

A variety of materials, including construction related items, sporting good equipment, home furnishings and appliances, could be pulled from the self-haul tip floor at Hawthorne Street Transfer Station for reuse; however, due to lack of space, intact and re-useable materials are often baled with other recyclables rather than set aside for potential reuse.

HWMA should reroute appropriate materials salvaged from its Hawthorne Street tip floor from recycling to reuse outlets, reuse being a "higher use" of the material and often more cost-effective than recycling. HWMA may choose to donate these materials to an existing reuse outlet, or open its own reuse outlet. Should it decide to operate its own reuse facility, HWMA should also explore the possibility of appliance refurbishment.

### Implementation

HWMA should first conduct a qualitative analysis of the Hawthorne Street tip floor's salvaged materials and review the quantitative amounts of potential reusable materials reported in HWMA's 2012 Waste Characterization Study. HWMA should then consider other reuse models, including HSU's dormitory move out system.

Following this consideration, and based on the amount and quality of potential items to be reused, either:

- Move salvageable materials to existing reuse outlets (i.e., salvage stores) more consistently; or
- Consider the feasibility of using HWMA's undeveloped land across from the transfer station facility for its own reuse store. A space utilization study of HWMA owned property would need to be conducted as part of this option.

### Challenges

- Material salvaged from the tip floor may be mainly construction materials and not appropriate for thrift stores. However, there may be opportunity for HWMA to sell used construction related items, as only a few operations exist currently within the county.
- Discarded materials recovered for salvage may require additional repairs in order to have value in the marketplace.
- Developing a cost effective reuse facility, if appropriate.

### Potential Costs

If HWMA chooses to develop a new reuse facility, it will incur capital improvement costs associated with the design, construction and operations of that facility. These costs could be potentially offset with revenue generated from sales at the reuse facility.

Alternatively, HWMA could incur transportation costs, if it is required to

deliver items to an existing reuse facility. However, existing salvage stores may provide transportation of the donated materials.

## Strategy 2.3: Conduct Annual Survey of Member Agency Services

### Description

Conducting an annual survey on the solid waste and recycling systems in each Member Agency will educate Member Agencies, HWMA, and stakeholders on services and customer rates throughout the region. Information obtained on rates and services can be used to assist in the planning of regional programs and services, and as a tool for negotiating contracts or extensions with service providers. An example of Alameda County's JPA annual survey is included as an attachment to Policy 7 in Appendix C.

### Implementation

1. HWMA should prepare the survey in an electronic document form with the desired information.
2. HWMA should then email the information to a representative from the Member Agency with a cover letter explaining the intent of the survey.
3. Once surveys are completed and returned to HWMA, the results can be compiled into a chart form and posted on HWMA's website. The templates for all of the survey documents can be saved and reused the next year for ease of implementation.

### Challenges

Receiving responses to the requested information from Member Agencies in a timely manner.

### Potential Costs

Beyond staffing costs, it is assumed that there would be minimal cost associated with conducting the survey. Initially, the creation of survey templates and compilation of results will require HWMA staff time; however, that time should decrease in the future after templates have been developed and Member Agencies become familiar with the format and content of the requested information. There may also be costs for Member Agencies to collect the information.

## Strategy 2.4: Compile Franchised Haulers' Diversion Reports

### Description

Because HWMA currently receives solid waste disposal tonnage information from all sources in Humboldt County, it would be beneficial for HWMA to also track franchise diversion tonnage. This information could be compiled to show a regional view of the amount of materials being diverted through Member Agencies franchised collection programs and at HWMA's Hawthorne Street Transfer Station.<sup>13</sup> The HWMA and Member Agencies can then use the data to measure and track franchised diversion programs and the success of regional

programs, including future efforts in support of the State of California's 75 percent recycling goal and mandatory commercial recycling mandate (AB 341).

### Implementation

1. Upon Member Agencies' request, HWMA should collect and compile diversion reports.
  - a. Member Agencies currently receive diversion reports from their franchised haulers and should be asked to forward the reports to HWMA. Once HWMA receives the diversion reports, the diversion tonnage information, along with disposal tonnage information they already receive, should be compiled into quarterly and annual countywide tonnage profiles.
  - b. Alternatively, a standard template could be developed by HWMA, to be filled out by franchised haulers. This would require more cooperation from haulers, as they would need to modify current report formats, but would ensure accurate reporting and analysis and would decrease HWMA staff time spent compiling the information.
2. HWMA should then compare the current year's countywide diverted and disposed tons to past year's diverted and disposed tons. This analysis can be used to track progress, or lack of, in terms of increasing diversion tonnage, decreasing disposal tonnage, and overall consumption.

<sup>13</sup> Non-franchise recycling comes from too many sources to be accurately tracked and self-hauled recycling has also been difficult to track according to HWMA staff.

### Challenges

Obtaining requested information from the Member Agencies and/or franchised haulers.

### Potential Costs

HWMA would incur staff time and costs associated with collecting and compiling franchised haulers' diversion reports. Once a system is in place to collect and compile this data, staff time should decrease.

## Strategy 2.5: Develop Model Policy Documents for Member Agencies

### Description

Model policy documents developed by the HWMA, with input from Member Agencies provided through the drafting process, could increase the likelihood that a policy document be widely adopted and provide another opportunity to strengthen regional diversion practices and programs. In addition, the development of the policies by HWMA, instead of by individual Member Agencies, could save Member Agencies' time and costs. Benefits of developing and implementing the individual documents described above are as follows:

- **Material / Disposal Ban:** A ban can target problem materials. For example, plastic bag material bans, which usually involve prohibiting retailers from distributing the plastic bags, can reduce litter and clean-up costs, and support the health of wildlife.
- **Organics Composting Ordinance:** If widely implemented, increasing the

amount of organics composted regionally may provide economies of scale toward capital costs of a regional diversion facility or lower service fees when negotiating with existing facilities.

- **C&D Debris Recycling Ordinances:** The C&D waste stream represents a potential long-term diversion opportunity for Humboldt County.
- **Environmental Procurement Policy:** By implementing an environmental procurement policy, Member Agencies can support diversion efforts by setting an example and providing markets, including local markets, for recovered materials. Additional benefits include providing positive public relations as well as health, environmental, and climate protection benefits.
- **Mandatory Recycling Ordinance:** These initiatives support increased recycling as well as California's mandatory commercial recycling law (Chesbro, AB 341) requiring all businesses or public entities generating more than four cubic yards of garbage weekly, and all multifamily units of five or more, to arrange for recycling services as of July 1, 2012.
- **Model Franchise Agreement Language:** Model franchise agreement language could be developed to promote more uniform service standards, diversion programs, reporting requirements, and minimum performance metrics, as appropriate. Member Agencies could use the model language in

future negotiations with their franchised haulers, or as part of any contemplated RFP process. As part of this sub-strategy, if requested by a Member Agency, HWMA could also provide assistance in re-negotiating an existing franchise agreement, conducting an RFP process, or managing a franchise agreement.

### Implementation

1. Upon request of, or staff interest in, developing a model ordinance, HWMA staff should gauge interest with Member Agency staff and develop a conceptual proposal for consideration by HWMA's Board.
2. Following direction from the Board, HWMA should conduct research on the issue at hand. Jurisdictions and agencies throughout California have developed model policy documents, and these documents are available from a variety of sources including the Green Cities California website<sup>14</sup>.
3. Once research is conducted, HWMA can present options to the Board and receive direction.
4. HWMA will need to either adopt best practices model policy documents or create their own.

### Challenges

- Drafting a document that satisfies the needs of all the Member Agencies. Significant time is required to refine a model document to one that meets the

requirements of a specific jurisdiction.

- While HWMA can assist in the drafting of policy documents, it has no power to enact an ordinance. Approval from individual Member Agencies, once the documents are developed, will be required to implement the ordinance through some or all of the region.

### Potential Costs

Potential staff time costs include researching, drafting, and reviewing the model documents.

## Strategy 2.6: Expand Public Education

### Description

In addition to continuing its current public education activities, the HWMA should expand its education services to include the following:

- **Mandatory Commercial Recycling Education.** In addition to mandating recycling service for businesses, AB 341 requires each jurisdiction to implement an education and outreach program to target those businesses. If requested, HWMA could partner with its Member Agencies, which oversee recycling franchise agreements, to provide the required education and outreach.
- **Construction Diversion Education.** The California Green Building Standards Code (CALGreen) requires that at least 50 percent of the construction materials generated

<sup>14</sup> <http://greencitiescalifornia.org/>

during the construction of new buildings, or additions and alteration to buildings or structures, be recycled and/or salvaged. Local jurisdictions with an existing C&D diversion ordinance can choose to amend their ordinance or simply inform their stakeholders about CALGreen. Each jurisdiction is encouraged to report how CALGreen is implemented to CalRecycle through their annual report. HWMA could partner with appropriate agencies that have connections to construction activities to promote the CalGreen requirements on behalf of its Member Agencies.

- **Waste Reduction Education.** HWMA could promote waste reduction programs, such as reusable grocery bag giveaways, or tap water rather than bottled water (the City of Arcata has one such promotional program called “Tap the Mad”).
- **HWMA Website.** HWMA should consider providing additional informational resources on its website. Expanding the website to include references to additional waste reduction services and referencing new regulations (such as mandatory commercial recycling) will promote regional diversion goals by serving as a hub of information for regional services and facilities.

### Implementation

- **Mandatory Commercial Recycling and/or Construction Diversion Education.** As a first step, HWMA should propose educational assistance to Member Agency staff

to gauge interest and further develop the idea. If Member Agencies agree to have HWMA provide these educational services, and funding is shared between interested parties, a MOU between HWMA and those Member Agencies should be drafted and signed.

- **Waste Reduction Education.** HWMA staff could evaluate its 2012 Waste Characterization Study to decide on a problem material to target in a waste reduction campaign.
- **HWMA Website.** HWMA staff currently manages its webpages and should update its website to include references to additional waste reduction services and new regulations such as mandatory commercial recycling.

### Challenges

- **Mandatory Commercial Recycling and/or Construction Diversion Education.** Staffing requirements may be challenging, if education includes site visits to businesses and construction sites.
- **Waste Reduction Education.** Staffing and funding requirements may be challenging.
- **HWMA Website.** Website monitoring and revisions are currently handled by staff members in general. As the website continues to be utilized to share information and become more dynamic in response to updates, it may be necessary to designate and/or hire personnel to manage the site and information.

### Potential Costs

- **Mandatory Commercial Recycling and/or Construction Diversion Education and/or Waste Reduction Education.** HWMA may incur increased costs and staff time. Costs may be offset with Member Agency, other partnering agency, or hauling company cost-shares or resource-shares.
- **HWMA Website.** Since the website's upgrade in 2010, there are now minimal costs associated with staff time to update the website on current programs; however, as noted above, in the future it may be necessary to designate and/or hire personnel to manage the site and information, which will result in an increased cost.

## Strategy 2.7: Transition to Self-Funded Programs

### Description

HWMA is funded primarily through tip fees that are collected on materials disposed at the Hawthorne Street Transfer Station.<sup>15</sup>

These tip fees are used to fund operations, capital improvements, transportation and disposal costs, and are also used to support programs that are not self-sustaining (i.e., programs that do not generate sufficient revenues to support services themselves).

Added to the base tip fee charged on disposal tons entering Hawthorne Street

<sup>15</sup> A tip fee is the dollar amount charged on the volume or weight of materials received at a solid waste facility. At the Hawthorne Street Transfer Station, this is a dollar amount per ton.

Transfer Station, is a Countywide Programs Fee. The Countywide Programs Fee is assessed on each ton of materials disposed in the jurisdictional boundary of HWMA and charged to all franchised collectors, non-franchised collectors, and customers whose solid waste originates in HWMA Member Agencies and is hauled to other transfer stations and out-of-county landfills.

HWMA should begin transitioning to self-funded programs, by assessing fees on the materials and/or users that the programs support, and away from the Countywide Programs fee which is assessed only on disposal tonnage. Instead, HWMA should adopt a hybrid of funding mechanisms to transfer to self-funded programs, such as:

- The following program costs could continue to be assessed on **disposal** tonnages, because they support past disposal activities:
  - Table Bluff Landfill Maintenance;
  - Cummings Road Maintenance; and
  - Administration (allocate a portion of the total amount based on direct costs).
- The following program costs could be assessed on **all** tons (including solid waste, organic materials and recyclable materials) because these programs indirectly support diversion activities and directly support regional environmentally sound materials management activities:
  - County Local Enforcement Agency (LEA);
  - City/County AB 939 Recycling Program (could be phased out if

- generator or parcel fees are implemented);
- Cleanup/Enforcement Program (could be phased out if generator or parcel fees are implemented); and
- Administration (allocate a portion of the total amount based on direct costs).
- Or, if feasible, the following programs could be assessed as **generator or parcel fee** in order to target the specific users of the program only, or to charge all users equally:
  - Household Hazardous Waste Program (could include individual fees for specific HHW materials such as CFLs, batteries and paint);
  - Cleanup/Enforcement Program;
  - City/County AB 939 Recycling Program;
  - Administration (allocate a portion of the total amount based on direct costs); and
  - Rural Container Program.

### Implementation (1-3 years)

1. Determine the specific programs and amounts to be funded by solid waste fees, fees on recyclable materials and organic materials, generator fees, or parcel fees. Restructuring fees should also include looking at program costs and benefits.
2. Work with Member Agencies to gain flow control for recyclable and organic materials that are not delivered to

HWMA managed facilities. If flow control cannot be obtained, it may be necessary to shift the funding targeted to generator or parcel fees.

3. To determine a parcel fee's revenue availability, work with the Humboldt County Assessor's office to determine the number of occupied parcels within the HWMA service area.
4. To determine a generator fee's revenue availability, work with Member Agencies to establish the number of franchised serviced accounts (residential and/or commercial) within the HWMA service area. This may require that some form of mandatory collection be adopted.

If HWMA should adopt specific generator fees on HHW materials, the fee would have to be collected at the point of drop-off.

5. Establish new generator fees and/or parcel fees, as appropriate.

### Challenges

- Transitioning from the current funding system to a hybrid system will require cooperation and agreement between HWMA, Member Agencies, franchise haulers and the Humboldt County Tax Assessor.
- HWMA will need to clearly analyze what programs, materials, staff and infrastructure are funded by the current Countywide Program Fees, determine the amount (if any) of cross funding support, establish new per ton program/material fees, and establish new generator fees or parcel fees for programs not to be funded by per-ton fees.

- Assessing fees on franchised recyclable or organic materials may require Member Agencies to grant HWMA flow control for those materials.
- To better include franchised serviced units under a generator fee, it may be necessary for Member Agencies to adopt some form of mandatory collection.
- A parcel fee may require a ballot initiative and 2/3 vote to implement.

### Potential Costs

The costs to change the method HWMA uses to fund Countywide Programs would include HWMA staff time and any outside expertise needed if a nexus or fee study is required. This could range between \$35,000 and \$75,000. In addition, the cost to prepare and administer a ballot initiative to adopt a parcel fee (if required) would have to be determined through consultation with appropriate elections officials. These costs would need to be recovered through the parcel fee.

## Phase III: Long-Term Strategies (Completed by 2023)

Phase III contains strategies that should be put in place by HWMA before 2023; however, the strategies in Phase III should begin to be planned and implemented prior to that time.

## Strategy 3.1: Develop Mixed Waste Processing Capacity, if Economically Feasible

### Description

In 2010, 59,571 tons of mixed waste<sup>16</sup> were received and passed through the Hawthorne Street Transfer Station, accounting for over 80 percent of Humboldt County's disposal. HWMA does not mechanically process any loads to recover materials, and consequently is diverting a limited amount (about 6,650 tons in 2012).

HWMA's authority and ability to directly increase diversion is limited to the recovery of materials from the mixed waste stream received at Hawthorne Street Transfer Station and destined for out-of-county landfills; therefore, additional or expanded methods should be utilized to capture recyclable materials. The most effective way to achieve this is by processing the mixed waste that is delivered to Hawthorne Street Transfer Station and before it is transferred to landfills and disposed of.

Construction of a mixed waste Materials Recovery Facility (MRF)<sup>17</sup> to process materials through a mechanical processing line would result in the greatest increase in diversion materials under HWMA's

<sup>16</sup> "Mixed waste" can refer to any combination of waste types. In this case mixed waste means garbage mixed with recyclable materials.

<sup>17</sup> A mixed waste MRF accepts mixed waste and separates designated recyclable materials through mechanical and manual sorting. This is different than a "clean" MRF, which processes recyclables that have already been separated from solid waste at the source. Source separated recycling programs should continue regardless of the development of a mixed waste MRF in order to maximize diversion.

authority. As detailed in the Additional Potential Diversion Analysis (Appendix B), in 2010 Hawthorne Street Transfer Station received 54,457 tons of mixed waste. If HWMA mechanically processed all loads of solid waste<sup>18</sup> and achieved a 50 percent capture rate of targeted materials<sup>19</sup>, an estimated 13,889 additional tons could be diverted (5.2 percent overall additional diversion). This represents a mixed waste MRF diversion rate of approximately 25 percent of the total materials processed at the Hawthorne Street Transfer Station, including non-targeted materials.

### Implementation

Following the implementation of tip-floor recovery operations at Hawthorne Street, HWMA should consider conducting a technical and economic feasibility study to construct a mixed waste MRF at its Hawthorne Street Transfer Station or other site. This may include conducting a space utilization study, which in turn may include a detailed analysis of the buildings and operational activities. Such a report could help HWMA plan more effectively for future projects and understand project infeasibilities, and could also factor the development of other sites into planning.

### Challenges

Additional infrastructure and operations at the Hawthorne Street Transfer Station will

be needed to modify the existing facility into a mixed waste MRF.

If Hawthorne Street Transfer Station could not be modified to accommodate a mixed waste MRF, then HWMA would need to procure a new site.

### Potential Costs

The cost of processing materials through a mixed waste MRF is projected to be in the high range of \$100 to over \$150 per ton. The Material Recovery Technology Review conducted for Pinellas County, Florida, which based its information on four mixed waste MRFs in California, projected that the average capital costs of a (highly mechanized) mixed materials MRF ranges from \$3 million to \$11 million for equipment alone, depending on processing capacity needed.

Additional costs include: costs incurred to conduct a feasibility study, space utilization study, and engineering study; site preparation; site acquisition (if needed); and environmental review.

This policy alternative would require further review of costs to determine if a mixed waste MRF is economical feasible. The full range of costs/benefits has not yet been identified.

<sup>18</sup> This represents residential, commercial, self-haul, and debris box waste streams. This does not include 6,844 tons of material from Eel River Disposal.

<sup>19</sup> Targeted materials types include many recyclable materials. See Appendix B for the full list of targeted material types.