

KING COUNTY METROPOLITAN SOLID WASTE MANAGEMENT ADVISORY COMMITTEE

April 13, 2007

11:45 – 2:30 p.m.

King Street Center, 8th Floor Conference Center

Approved Minutes

Members in Attendance

<u>Name</u>	<u>Agency</u>	<u>Title</u>
Jeff Viney	City of Algona	Councilmember
Sharon Hlavka	City of Auburn	Solid Waste Supervisor
Bill Peloza	City of Auburn	Councilmember
Susan Fife-Ferris	City of Bellevue	Conservation and Outreach Program Mgr.
Debbie Anspaugh	City of Bothell	Administrative Coordinator
Joan McGilton	City of Burien	Mayor
Don Henning	City of Covington	Councilmember
Rob Van Orsow	City of Federal Way	Solid Waste and Recycling Coordinator
David Baker	City of Kenmore	Deputy Mayor
Jessica Greenway	City of Kirkland	Councilmember
Jim Lauinger	City of Kirkland	Mayor
Erin Leonhart	City of Kirkland	Public Works Maintenance Supervisor
Carolyn Armanini	City of Lake Forest Park	City Representative
Glenn Boettcher	City of Mercer Island	Maintenance Director
Jon Spangler	City of Redmond	Natural Resources Division Manager
Linda Knight	City of Renton	Solid Waste Coordinator
Dale Schroeder	City of SeaTac	Public Works Director
Mark Relph	City of Shoreline	Public Works Director
Rika Cecil	City of Shoreline	Environmental Programs Coordinator
Frank Iriarte	City of Tukwila	Deputy Public Works Director

Others in Attendance

Solid Waste Division

Theresa Jennings, Solid Waste Division Director
Kevin Kiernan, Engineering Services Manager
Jeff Gaisford, Recycling and Environmental Services Manager
Brad Bell, Landfill Operations Manager
Bob Tocarciuc, Planning Supervisor
Diane Yates, Intergovernmental Relations Liaison
Jane Gateley, Technical Writer
Gemma Alexander, SWD Staff
Tom Karston, SWD Staff

King County Council Staff

Mike Reed

Guests

Amy Ensminger, City of Woodinville
Karen Goroski, Suburban Cities Association
Karl Hufnagel, RW Beck
Rory Tipton, RW Beck

1 **Call to Order**

2 MSWMAC Vice Chair Jessica Greenway called the meeting to order at 12:00. She
3 explained that she would chair today’s meeting as Chair Jean Garber could not attend due
4 to a family emergency. Everyone present introduced themselves.

5
6 **Approve December Meeting Minutes and Review Agenda**

7 *MSWMAC member Bill Pelozza moved approval of the March minutes.*

8
9 *MSWMAC member Susan Fife-Ferris suggested the number of bales was confusing
10 and should be removed from line 175.*

11
12 *The March minutes were approved as amended by consensus.*

13
14 **SWD Update**

15 Jennings reported that Engineering Services Manager Kevin Kiernan and Karl Hufnagel,
16 a consultant from RW Beck traveled to Germany to tour waste-to-energy (WTE) facilities
17 sponsored by Waste Recovery Seattle, Inc. Also on the tour were King County
18 Councilmember Kathy Lambert, a member of Enterprise Seattle, two employees of
19 Covanta, an east coast WTE company, and a representative of Puget Sound Energy.
20 They found that waste to energy functions well in Germany with high environmental
21 standards as a result of a national waste management policy that includes product
22 stewardship and national packaging taxes to pay for materials recovery facilities. The
23 German disposal fee is €150/ton (about \$200) in contrast to the current King County
24 disposal fee of \$32/ton. The German waste system includes transfer stations. Kiernan’s
25 conclusion based on this trip is that WTE is technically feasible.

26
27 In response to a question, Kiernan said the potential barriers to using WTE here would be
28 convincing the public that the technology is not environmentally harmful, determining
29 whether it is cost effective relative to landfilling, and siting. He said that siting new WTE
30 facilities is difficult even in Germany. Kiernan said the consultants will give several
31 presentations on waste to energy that will look at these questions in more detail.

33 Jennings announced there will be a green building training in Bellevue on June 9 to
34 launch the division's new green building toolkit. She encouraged anyone who is
35 interested to attend.

36

37 Jennings said that the Public Issues Committee of the Suburban Cities Association voted
38 last Wednesday to support the rate proposal. The PIC recommendation now goes to the
39 Executive Committee of the Suburban Cities Association for final approval. Jennings is
40 grateful and wants to thank MSWMAC members for spending the time to work on solid
41 waste. She said the council's Operating Budget Committee is tentatively scheduled to
42 review the rate proposal April 25.

43

44 Greenway asked members if MSWMAC would like to take action on the rate proposal at
45 its May meeting. There was consensus that MSWMAC would. Staff will prepare a letter
46 to council from MSWMAC for review at the May meeting.

47

48 **SWAC Update**

49 Armanini reported that SWAC invited council and staff to attend its next meeting when
50 today's WTE presentation is repeated for SWAC.

51

52 MSWMAC and SWAC member Joan McGilton said that at SWAC's last meeting they
53 heard a legislative update; moved two names for SWAC membership and received an
54 update on capital projects. SWAC had a discussion on waste prevention and recycling
55 criteria. She said Jerry Hardebeck, formerly of Waste Management, has moved to a
56 company called CleanScapes, which is getting dumpsters out of alleys. She suggested
57 that Hardebeck might come to talk to MSWMAC.

58

59 Greenway suggested that Hardebeck might come when MSWMAC has completed its
60 discussions of waste to energy.

61

62 **ITSG Update**

63 MSWMAC and ITSG member Linda Knight reported that ITSG had a very good
64 discussion about the recent trip to Germany and received an update on the third party

65 review. ITSG also reviewed the waste prevention and recycling criteria on today's
66 MSWMAC agenda.

67

68 **Third Party Review Update**

69 Council Staff Mike Reed said that there is a signed contract with the consultant GBB. He
70 said the consultants are currently reviewing documents and assembling the expert panel.

71 They want the panel to meet with the Regional Policy Committee (RPC) on May 9 and
72 MSWMAC on May 11 for about 20 minutes. They will attempt to arrange a meeting
73 with SWAC that same day.

74

75 **Waste to Energy**

76 Greenway encouraged members to ask questions as they occur during the presentation,
77 but reminded members that this is only the first of three presentations on this subject.

78 She said this presentation will provide a broad overview of all waste-to-energy
79 technologies. The next presentation will narrow the discussion to those technologies that
80 may be feasible.

81

82 Kiernan introduced Karl Hufnagel and Rory Tipton from RW Beck, a national firm with
83 significant experience in solid waste and energy issues. Their presentation is available at:
84 <http://www.metrokc.gov/extranet/dnrp/swd/WTE101.ppt>

85

86 Hufnagel began with an introduction to three emerging technologies - pyrolysis,
87 gasification and plasma arc. Armanini asked if compaction is compatible with pyrolysis.
88 Hufnagel replied that compaction doesn't change the size of the pieces in the garbage, so
89 compacted waste still must be shredded before pyrolysis.

90

91 Fife-Ferris asked if these technologies were compatible with recycling, or if they required
92 materials such as paper in the feedstock. Hufnagel replied that for all thermal processes
93 under discussion today the waste that is currently sent to Cedar Hills Landfill is an
94 acceptable input, although some materials such as large metals and glass may be better
95 left out.

96

97 Kiernan added that once the initial screen is completed, a specific analysis of impacts on
98 recycling will be applied to the remaining technologies.

99

100 MSWMAC member Erin Leonhart asked about the number of gasification facilities
101 currently in operation. Hufnagel said the technology is in use in Japan, and there are a
102 few facilities in Europe.

103

104 McGilton asked whether this is a new technology. Hufnagel said that it is essentially the
105 same process that was in use at the old gas plant on Lake Union, except that coal was the
106 feedstock then. Tipton added that gasification using solid waste was developed in the
107 1990's. Except for basic combustion, applications of all of these technologies to solid
108 waste management have developed very recently.

109

110 McGilton said she wanted to verify that this is really a new technology that has
111 developed since the last time waste-to-energy was discussed, in the 1980's.

112

113 Hufnagel said the basic process is the same, but the secondary processes, such as the
114 handling of flue gases, have changed significantly in the last decade. In the case of
115 plasma arc technology, the heat is produced in a different manner that results in a lower
116 net energy gain.

117

118 Hufnagel introduced commercially proven thermal technologies by stating that all three
119 are basically the same central process, and the differences between them are found in
120 preprocessing and in the back end. He said that direct steam use is a key factor in the
121 efficiency of mass burn. Although regulations in Washington make disposal of fly ash
122 problematic, the technology has made significant improvements in air quality impacts in
123 the last 20 years.

124

125 MSWMAC member David Baker asked if the Seattle area has any steam customers who
126 could use steam generated by a WTE facility, and whether they would need to be located
127 adjacent to the WTE facility.

128

129 Hufnagel replied that steam customers do have to be close. In Cologne, the steam using
130 customer is located less than half a mile from the WTE plant. Hufnagel said he does not
131 know of such a customer in King County.

132

133 In response to a question about recycling and Refuse Derived Fuel technology, Hufnagel
134 said it is different from mass burn because noncombustibles such as metal must be
135 removed and the remaining material shredded before burning. He added that the study is
136 looking at the relationship between thermal technologies and recycling, and it is true that
137 plastics are a good feedstock.

138

139 Armanini commented that German facilities are hungry for paper.

140

141 Hufnagel said that before Germany instituted its landfill ban, WTE facilities were short of
142 fuel. Once the ban was in place, WTE facilities didn't have enough capacity. He added
143 that there a number of factors that affect the issue of recycling in a WTE system.

144

145 Kiernan commented that the German system is a result of national policy and operates
146 with a different infrastructure and very high citizen compliance. German policy
147 encourages burning plastics, which have a high energy value.

148

149 Hufnagel said that future presentations will address this question in greater detail.

150

151 Hufnagel said that Advanced Thermal Recycling involves a high level of flue gas
152 treatment and air quality controls that produce gypsum and commercial grade gypsum as
153 byproducts. These materials do not generate a lot of revenue, but are recycled and kept
154 out of the waste stream. Advanced thermal recycling involves higher capital costs than
155 other technologies.

156

157 In response to a question, Hufnagel said that there are only a few advanced thermal
158 recycling facilities in Germany, compared to about one hundred mass burn facilities.

159

160 Greenway asked how quickly the emerging technologies are developing. Hufnagel
161 replied that technology is developing very rapidly. He would place waste to energy
162 technologies in three categories:

- 163 1. Proven – commercially proven and available now
- 164 2. Emerging - promising technologies that should be monitored because they may
165 be commercially available in a few years
- 166 3. Future – theoretical technologies that are a long way from commercial
167 application

168

169 Armanini asked if the analysis works back from the forecasted 2016 closure date of
170 Cedar Hills. Hufnagel said technologies are only considered proven if they could be sited
171 and permitted by 2016.

172

173 Landfill Operations Manager Brad Bell asked about the quality of landfills in Germany
174 before the ban. Kiernan replied that East Germany had a lot of problem landfills that
175 were not built to the United States' Subtitle D standards.

176

177 After describing biological and chemical technologies, including Steam Classification,
178 Anaerobic Digestion, Waste-to-Ethanol, Composting, Thermal Depolymerization and
179 catalytic cracking, Hufnagel said that there will be two more presentations that look at the
180 most promising technologies in greater detail. He said the purpose of the study is not to
181 make policy recommendations, but to provide information on the technologies available.

182

183 Fife-Ferris asked if so many technologies are being studied because we have no policy
184 guidance yet. Kiernan replied that the county has been approached by technology
185 advocates, and wants to look at everything that is available. However, it will be possible
186 to narrow the options fairly quickly and then it will be possible to look very closely at the
187 air emissions and economics of the remaining technologies.

188

189 Gaisford said the division will take the same approach with recycling options that it is
190 taking with disposal. That is, the division will look at all of the options before narrowing
191 down choices.

192

193 **Comp Plan Schedule**

194 Planning Supervisor Bob Tocarciuc said the new Comp Plan schedule includes input
195 from ITSG and will continue to change as needed. He said the Cedar Hills closure
196 timeline is based on a tentative closure date of 2016, which may change.

197

198 Kiernan added that the closure timeline is based on the assumption that the Transfer and
199 Waste Export System Plan will be approved. In response to a question, he added that a
200 number of factors can change the closure date of Cedar Hills, including increased
201 recycling, partial early export and adding capacity at Cedar Hills.

202

203 Jennings said increased recycling and partial early export could each add a year to the life
204 of Cedar Hills. Capacity improvements at the landfill itself could add more than a year.

205

206 MSWMAC member Don Henning asked if there would be a ramp-up period moving to
207 waste export. Kiernan said partial early export would serve as a pilot, but waste export is
208 a proven option. Both Seattle and Snohomish County export their waste by rail.

209 Jennings added that the transition time for Seattle when it switched to export was very
210 short.

211

212 Pelosa said he challenges everyone at MSWMAC to give the division input on significant
213 milestones that should be added to the timeline. He suggested the third party review and
214 implementation of the steps in the governance report be added to the timeline.

215

216 Jennings said that a new draft of the timeline with more detail will be available next
217 month.

218

219 Pelosa thanked division staff.

220

221 MSWMAC member Rob Van Orsow asked about Cedar Hills' permitted capacity.

222 Kiernan said Cedar Hills is permitted through Area Seven. Capacity could be added
223 through development of Area Eight. In November MSWMAC will have a discussion of

224 Cedar Hills' capacity. By then, the division will have a better idea of how development
225 of Area Eight would work.

226

227 In response to a question, Kiernan said the third WTE presentation will compare WTE to
228 landfilling and will include both air quality and tipping fees.

229

230 **Waste Prevention and Recycling**

231 Recycling and Environmental Services Manager Jeff Gaisford said the purpose of
232 discussion today is to define the criteria that will be used to evaluate potential recycling
233 programs for the Comp Plan. The list of criteria was developed by MSWMAC and
234 SWAC.

235

236 Gaisford reviewed a handout on the criteria, using aluminum and organics as examples.
237 He said the criteria provide a way to categorize information about strategies, but do not
238 provide a score.

239

240 Hlavka asked if the division assumes strategies will be implemented by commodity.

241 Gaisford replied that in most cases that will be true, but there may be some actions, such
242 as changes to curbside services that will affect a group of materials.

243

244 **Adjourn**

245 Pelosa commented that the division's annual report was well done. MSWMAC
246 applauded Technical Writer Jane Gateley.

247

248 The meeting was adjourned at 2:00 p.m.

249

250 Submitted by:

251 Gemma Alexander, SWD Staff