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LOWER YAKIMA VALLEY GROUNDWATER MANAGEMENT AREA ADVISORY COMMITTEE (GWAC)

MEETING SUMMARY

Thursday, October 17, 2013

*Radio KDNA
121 Sunnyside Ave, Granger, WA 98932*

I. Call to Order

Roll Call: The meeting was called to order at 5:02 pm by Penny Mabie, Facilitator.

Member	Seat	Present	Absent
Stuart Turner	Agronomist, Turner and Co.	✓	
Chelsey Durfey	Agronomist, Turner and Co. (alternate)		✓
Helen Reddout	Community Association for Restoration of the Environment	✓	
Wendell Hannigan	Community Association for Restoration of the Environment (alternate)		✓
Kathleen Rogers	Lower Valley Community Representative Position 1	✓	
Bud Rogers	Lower Valley Community Representative Position 1 (alternate)	✓	
Patricia Newhouse	Lower Valley Community Representative Position 2	✓	
Sue Wedam	Lower Valley Community Representative Position 2 (alternate)	✓	
Doug Simpson	Irrigated Crop Producer	✓	
Jean Mendoza	Friends of Toppenish Creek		✓
Eric Anderson	Friends of Toppenish Creek (alternate)	✓	
Jan Whitefoot	Concerned Citizens of the Yakama Reservation		✓
Jim Dyjak	Concerned Citizens of the Yakama Reservation (alternate)	✓	
Steve George	Yakima County Farm Bureau	✓	
Justin Waddington	Yakima County Farm Bureau (alternate)		✓
Jason Sheehan	Yakima Dairy Federation	✓	
Dan DeGroot	Yakima Dairy Federation (alternate)	✓	

[Type text]

Groundwater Management Area (GWMA):

The purpose of the GWMA is to reduce nitrate contamination concentrations in groundwater below state drinking water standards

Jim Trull	Roza-Sunnyside Joint Board of Control	✓	
Ron Cowin	Roza-Sunnyside Joint Board of Control (alternate)		✓
Laurie Crowe	South Yakima Conservation District	✓	
Jim Newhouse	South Yakima Conservation District (alternate)		✓
Robert Farrell	Port of Sunnyside	✓	
John Van Wingerden	Port of Sunnyside (alternate)	✓	
Rand Elliott	Yakima County Board of Commissioners	✓	
Vern Redifer	Yakima County Board of Commissioners (alternate)	✓	
Gordon Kelly	Yakima County Health District		✓
Dr. Kefy Desta	WSU Irrigated Agriculture Research and Extension Center		✓
Dr. Troy Peters	WSU Irrigated Agriculture Research and Extension Center (alternate)	✓	
Tom Eaton	U.S. EPA		✓
Marie Jennings	U.S. EPA (alternate)		✓
Elizabeth Sanchey	Yakama Nation		✓
Tom Ring	Yakama Nation (alternate)		✓
Lonna Frans	U.S. Geological Survey		✓
Matt Bachmann	U.S. Geologic Survey (alternate)	✓	
Kirk Cook	WA Department of Agriculture	✓	
Virginia "Ginny" Prest	WA Department of Agriculture (alternate)		✓
Andy Cervantes	WA Department of Health	✓	
Ginny Stern	WA Department of Health (alternate)	✓ (by phone)	
Charlie McKinney	WA Department of Ecology	✓	
Tom Tebb	WA Department of Ecology (alternate)		✓
Lino Guerra	Hispanic Community Representative	✓	
Rick Perez	Hispanic Community Representative (alternate)		✓

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II. Welcome & Meeting Overview

Moment of silence.

Introductions.

Reminders:

- Please make sure you sign in.

- 30 • Please speak up and use the microphone so everyone can hear.

31

32 **III. Committee Business:**

33

34 August 15, 2013 meeting summary approved by committee with no changes.

35

36 September 19, 2013 meeting summary approved by committee with no
37 changes.

38

39 Laurie Crowe with South Yakima Conservation District advised that they have put
40 together a fifty page booklet on the History of Yakima's Agricultural Industry that
41 may be useful to the Groundwater Advisory Committee. Twenty-five copies
42 were distributed to the members for their review and comment. Committee
43 members were asked to provide any comments directly to Laurie, and to
44 consider whether the GWAC wants to post this document on the GWMA website
45 for informational purposes.

46

47 **IV. Heritage University Public Questionnaire Report: (Presented by: Jessica Black,
48 Professor of Environmental Science and Francisco Ramirez, student.)**

49 The members were provided with a map of the survey areas. The red dots on the
50 map indicate areas targeted for surveys. Francisco was the field monitor for the
51 survey and he reported to the GWAC how the surveys were administered.

52 Students went out in pairs with one bilingual student in each pair. Francisco tried
53 to assign the students to areas they were familiar with. His area was Sunnyside as
54 he had gone to school there. A list of addresses was provided by the County.

55 They then Google mapped the addresses. They found it helpful to print out the
56 parcels of the houses and use their GPS on their phones. Parcels were organized
57 by travel, as well as time. Francisco found that the hours between 4:00 p.m. and
58 7:00 p.m. worked best for contacting households. In some cases the students
59 went out a second or third time to make contact.

60

61 Issues:

- 62 • A lot of homes were found to be vacant
63 • Some homes had locked gates
64 • Dogs were the main issue

65

66 Out of 300 homes in the survey sample, the students were able to complete 136
67 surveys. All 300 homes received an English/Spanish postcard notification in
68 advance of the survey. Houses where no one was home received an
69 English/Spanish flyer about the students' visit and a request to contact the
70 County. The 136 homes that were surveyed received an English/Spanish packet
71 of information about the GWAC, private wells and nitrate in groundwater.
72 Others declined the survey stating they already had their water tested or they
73 had simply taken care of the matter.

74

75 The purpose of the survey was to gauge what people knew about nitrates, their
76 drinking water and the GWMA GWAC. The data from the survey revealed that
77 most people had knowledge of nitrates and the dangers. It also revealed that
78 the GWAC needs to work on getting their name and purpose out to the public,
79 as only 42 percent of the respondents had heard of the committee. Results are
80 posted on the website:
81 http://www.yakimacounty.us/gwma/education_public_outreach.php.

82
83 A committee member asked if the map could be made more specific and
84 could indicate the targeted areas as well as the locations of actual surveys.
85 Jessica advised that Heritage University is uncomfortable with addresses being
86 made public as this put Heritage University in a compromising position due to
87 privacy concerns.

88
89 **V. Nutrient Budget: (Kirk Cook presented)**

90 The budget has not been developed yet. The Data Working Group is trying to
91 get a handle on what is being applied to the surface. It is known what crops, soil
92 and types of irrigation are used. However, with regards to fertilizers, while
93 application guidelines could be used to draw assumptions; that would not take
94 into account what is really happening in the field. Kirk noted the need to start
95 with basic information, e.g., what is the assessed nutrient that will move down-
96 level into the soil? If there is a nutrient assessment, it needs to include discrete
97 areas where other types of crops are. It also would need to know what is going
98 into the ground, the impact, rate, quantity of nutrients, crop location, etc.

99
100 Kirk noted the following questions that need to be asked:

- 101 • Where did application take place?
- 102 • How much is being applied (nitrate)? There is a lot of manure spraying,
103 but there is also synthetic spraying.
- 104 • When is it being applied?
- 105 • What form is the nutrient (manure, green manure, etc.)?
- 106 • What is the irrigation application (applied or rainfall)?

107
108 There is also a need for confidentiality. In order to get growers to participate, Kirk
109 noted they would need to be assured of confidentiality. The GWAC needs help
110 from the growers in order to learn what they do over the year.

111
112 Kirk described three levels of potential approaches to developing the nutrient
113 budget:

- 114 • Basic level – survey crop types, nutrient application, schedules, irrigation
115 practices in three representative areas
- 116 • Medium level – basic level plus compare with DSS, five representative
117 areas, soil type assessment
- 118 • High Level – basic and medium plus vadose zone monitoring and
119 additional DSS

120

121 The committee needs to decide which model to use. Kirk asked GWAC
122 members to send their thoughts and ideas to him. The work group will make a
123 presentation at the November meeting with additional information about the
124 USGS modeling approach that was discussed in September, as well as have a
125 draft scope of work for developing the nutrient budget ready for the
126 committee's review. If the GWAC does not want to go with the USGS modeling
127 approach, Kirk noted the work group suggests that the committee at least go
128 with the medium level model.

129
130 Several members of the committee advised that there are a lot of studies out
131 there already, and they should be used, so as to ensure work is not "redone."

132
133 **VI. Deep Soil Testing Proposal: (Jim Trull presented)**

134 The GWAC was provided with a "Draft Deep Soil Sampling Plan for the Lower
135 Yakima Valley Groundwater Management Area." Deep soil sampling would
136 provide a snap shot view of where the GWAC should be focusing its efforts. The
137 hope is that it would lead to an educational program. The work group started
138 out using the Columbia-Basin GWMA's deep soil sampling plan as a template for
139 their plan. Jim described some of the changes that were included to adopt the
140 Columbia-Basin plan to the Lower Yakima Valley area. For instance, the current
141 draft plan would start out with sampling one hundred farms the first year and fifty
142 farms the second year. Another change is the farmers would not have to pay for
143 the sampling. The funding for sampling would be provided through the South
144 Yakima Conservation District. There is worry that the GWAC would not get
145 farmer participation without guaranteeing confidentiality. (The committee was
146 told that the Yakima County prosecuting attorney has advised that participants
147 can be protected from public disclosure requests. The other level of
148 confidentiality this is needed is to have protection from the need to disclose
149 specific sampling results and locations in court, as well.)

150
151 The preliminary budget for deep soil sampling is \$217,000.00

152
153 Next Steps:

- 154 • Sign an agreement with South Yakima Conservation District.
- 155 • Sampling matrix (grouping crops together)
- 156 • Work group meeting next week

157
158 **VII. Best Management Practices Database: (Mike Murray, HDR presented)**

159 The committee was provided with a "Draft Initial Best Management Practices
160 Database Summary". Mike explained that the purpose of the BMP database is
161 to identify and assess current available technologies and management
162 approaches. He noted the need to develop an approach for organizing BMPs in
163 order to create a useful database. The committee needs to discuss the
164 proposed framework.

165

166 Mike described a proposed hierarchal approach that could serve as an outline
167 for the BMP database:

- 168 • Identify potential nitrogen sources (e.g., irrigated cropland)
- 169 • Develop list of key management objectives (e.g., design and operate
- 170 irrigation system to decrease soil water percolation beneath root zone)
- 171 • Develop list of management targets per objective (e.g., improve irrigation
- 172 scheduling)
- 173 • Develop list of best management practices per target (e.g., use weather
- 174 base irrigation scheduling)
- 175

176 There are six potential proposed nitrogen source categories in the proposed
177 approach:

- 178 • Irrigated cropland (includes solid and liquid manure cropland application)
- 179 • Livestock operations (storage and handling of manure)
- 180 • Turfgrass and Other urban landscaping
- 181 • Municipal and industrial land application of wastewater (including
- 182 storage and handling)
- 183 • Sewer leakage
- 184 • Septic systems
- 185

186 Management objectives would be to reduce nitrates by:

- 187 • Design and operating irrigation systems
- 188 • Manage crop plants
- 189 • Manage N fertilizer and manure
- 190 • Improve storage and handling
- 191

192 The committee was asked to review the source tables in the draft BMP database
193 technical memo, focusing on the objectives and management targets, and
194 provide feedback to the County within the next two weeks. The County will
195 compile and forward all comments to Mike Murray.

197 **VIII. Working Group reports:**

198 **Education and Outreach: (Orange document)**

199 The group is receiving invitations from groups such as El Proyecto Bienestar
200 (Project Well-being) to hear about the GWAC. A GWAC presentation is
201 scheduled for Project Well-being's Community Advisory Board on
202 December 2nd. Chair Rand Elliott is unavailable on this date and the
203 GWAC needs to approve a recommended replacement to speak at the
204 meeting. The committee approved Rand's alternate, Vern Redifer, as
205 recommended by the EPO. The EPO will provide a proposed Power Point
206 presentation for the approval of the committee at the next meeting. This
207 presentation will be what Vern will provide to the Board.
208
209

Groundwater Management Area (GWMA):

The purpose of the GWMA is to reduce nitrate contamination concentrations in groundwater below state drinking water standards

210 A committee member requested that the EPO consider sending a second
211 GWAC member with Vern to the presentation (preferably Jean Mendoza
212 or Patricia Newhouse).
213

214 One outcome of the survey done by Heritage is that 45 homes are
215 interested in having their well tested.
216

217 The next survey scheduled is the "High Risk Well Assessment survey".
218 Yakima Health District has been contracted to conduct up to 320 surveys.
219 They will conduct a test run of the 45 homes from the Public Questionnaire
220 survey that expressed interest in a well test before contacting additional
221 households. Andy Cervantes from the state Department of Health has
222 trained the Health District employees who will be administering the survey.
223

Irrigated Agriculture:

224 Nothing new to report.
225
226

CAFO/Livestock:

227 The work group did not meet. They are working on setting a meeting
228 date. They did have some email discussions on the issue of bio-solids.
229 Ecology has a staff person who is willing to come and talk to the work
230 group about bio-solids. It was suggested this would be a good topic for
231 the Residential, Commercial, Industrial and Municipal working group. (It
232 was brought to the attention of the committee that Chelsea Durfey, Stuart
233 Turner's alternate, is highly involved and informed on bio-solids and can
234 be a great resource for the GWAC.)
235
236

Regulatory:

237 The work group took the list of regulations that HDR developed and has
238 started discussion with regulators about how they implement the
239 regulations, whether it's by inspection, testing, etc.
240
241

Residential, Commercial, Industrial and Municipal:

242 The work group meeting is scheduled for the last Thursday of October. A
243 representative from the Department of Ecology suggested that there is a
244 model producing nutrient loading data that is current through 2011 that
245 could be useful. The work group also discussed the nitrogen cycle.
246
247

Data Collection:

248 The group did not formally meet. They did get a hydro-geologist from the
249 Department of Ecology and Department of Health to discuss the USGS
250 model. They plan to make presentation to the GWAC at the November
251 meeting.
252
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254

255 **IX. Public Comment:**

256 No comments.

257

258

259 **X. Next Steps:**

260 • Penny noted it is time for the GWAC to conduct an evaluation of
261 their work to date. She will develop a draft self-assessment survey
262 and ask EPO work group members to review the draft. Then the
263 survey will be provided to all GWAC members to complete. Results
264 will be provided at December's meeting.

265 Action items:

- 266 • Review History of Agriculture in Yakima.
- 267 • Penny will send out copies of slides from tonight's presentations and
268 have them posted on the website.
- 269 • Review nutrient budget and proposed options; send comments to
270 Kirk.
- 271 • The committee will hear more on deep soil sampling next month
- 272 • Work groups need to review the BMP database framework within the
273 next two weeks and provide comments.

274

275 Topics for November meeting:

- 276 • Goals and objectives of working groups – it is time to finalize them.
- 277 • Decision on whether or not to use the History of Yakima Agriculture
278 booklet.
- 279 • USGS modeling proposal
- 280 • Nutrient budget
- 281 • EPO's Power Point presentation draft
- 282 • Deep soil sampling scope of work

283

284 Due to a full agenda for November, Dr. Stevens' basic nitrate presentation request
285 will be delayed to a future meeting.

286

287

288 **XI. 2013 Meeting Calendar:**

- 289 • November 21
- 290 • December 19

291

292 Meeting calendar will be reassessed at the end of the year.

293

294 The meeting was adjourned at 7:26 pm.

295

296

297 Meeting summary approved by the GWAC on November 21, 2013.

298