

Supplemental Material

Article Title: Leveraging integrative research for inclusive innovation: urine diversion and re-use in agriculture

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Text SI: **Sample Focus Group and Interview Prompts**

We have described a low budget approach to iterative coding that we found to yield good results. Below are examples of two of our focus group guides and three of our several interview guides, different versions of which emerged through revisions to existing guides as our work expanded to include new stakeholder categories.

Focus Group Guide for farmers

Revised 3.23.18

Thank you for your willingness to participate in this focus group about urine diversion and the use of urine derived fertilizers in agriculture. We will be talking together for about 90 minutes. Your responses during this time are confidential. While you are free to discuss any of the technical issues we talk about during the discussion today, we ask that you refrain from sharing details about one another's identities and comments outside this group. That being said, we cannot guarantee complete confidentiality in this focus group.

We want to hear your opinions and experiences and share ideas together during this time. Your candid responses are highly encouraged and will be most helpful towards this study. We will ask open-ended questions and we want to hear from everyone in this group. I, as the researcher, will moderate this discussion.

As you may know, urine is naturally rich in key nutrients that synthetic fertilizers use to stimulate crop growth. Treating and transforming urine into natural fertilizer may be an appealing alternative to synthetic fertilizer, while simultaneously making wastewater treatment a much easier and less expensive process. Our research to date suggests that urine diversion and nutrient recovery has the potential to reduce the economic costs, energy consumption, and chemical use for waste management;

reduce the need for synthetic fertilizers; better manage trace constituents like pharmaceuticals; and reduce water use. In order to prevent water from entering the wastewater stream, toilets called “urine diverting toilets,” can be used. These toilets separate urine from solid waste at the time of toilet use. As a fertilizer, urine is high in nitrogen and also supplies moderate levels of phosphorous and potassium. One thousand gallons of pasteurized urine contains approximately 50 lbs of Nitrogen, 6 lbs of phosphorus, and , and 18 pounds of potassium, or an N-P-K ratio of approximately 11.5-1.7-4.0 suggesting that this might be a valuable fertilizer in soils with high or excess phosphorus. Farmers participating in a demonstration project in Brattleboro, Vermont, have had good results applying the sanitized urine to hayfields without dilution. One of our research goals is to develop a concentrated product that can be applied directly to reduce labor requirements.

We will first introduce ourselves and then begin our discussion. [During introduction, ask how participants describe their farm operation (i.e. conventional, organic, organic – not certified, or some other description) and amount of land currently in production (including cultivated, fallow, forage, or working forest). This info is also on eligibility questionnaire, but it is helpful here to orient interviewer while asking questions.]

[Remind participants that while we have a list of questions we’ll be asking, please feel free to jump in with any additional thoughts that you feel are important]

Let’s begin:

1. Some researchers, farmers, and homeowners are considering using urine or a urine-derived product as a fertilizer. What is your initial reaction to this idea?
2. As mentioned in our introduction, urine contains significant amounts of nitrogen and phosphorus, as well as potassium, calcium, magnesium, sulfur and some micronutrients as well. Do you already have some knowledge about this subject? Say more...
3. Various treatment methods for the urine are being tested. Do you have any concerns about recycling urine into a fertilizer to grow either edible or non-edible plants? If so, what are they?
4. Do you have any positive feelings about this potential? If so, what are they?
5. What types of fertilizers do you currently use on your crops? Why do you make these choices?
6. Would you be comfortable using urine or a urine-derived fertilizer to fertilize crops for animal consumption? Why or why not?
7. Would you be comfortable using urine or a urine-derived fertilizer for other non-edible crops (such as flowers)? Why or why not?
8. Would you be comfortable using urine or a urine-derived fertilizer on all edible crops? Some edible crops? (if “some”, which ones and why?)
9. If a urine derived fertilizers were available, would you feel differently about the use of a liquid as compared to a dry fertilizer? If so, why?

10. What are your thoughts about the use of urine or urine-derived fertilizers as compared to the use of "biosolids"? [define if needed – i.e. treated sewage solids including human waste – also see Note below re organic approval]

11. [If participants have mentioned concerns about "safety" of UDFs due to pharmaceuticals, hormones, antibiotics, viruses, bacteria ...] What does "safety" mean to you? What would you need to know to be assured of "safety"?

12. Does your method of farming (such as organic, conventional, etc.) affect your thinking on this subject in any way?

13. Do you have concerns about the effects of urine or a urine-derived fertilizer on soils? If so, what are your concerns? [Probe: Soil health overall? Soil microbial community? Soil organic matter content?]

Transition: We've talked about the use of urine and urine-derived fertilizers on crops, now we are going to talk about eating crops fertilized with these types of fertilizers...

14. Would you be comfortable eating foods that are grown using urine or a urine-derived fertilizer? [PROBE: Comfortable with some foods and not others?]

Transition: These next questions have to do with the kinds of things that might influence your thinking about this....

15. If recycling urine proved to be cost effective, and save tax dollars in water treatment, would this affect your thoughts about this?

16. If using a urine-derived fertilizer could help keep nutrients out of the waste water or provide other environmental benefits, would this affect your thinking about using it?

17. What additional factors would affect your thinking about urine-derived fertilizers?

18. What technical information or support would you need in order to make a decision about using urine or a urine-derived fertilizer?

[Probe: about nutrient content; about timing of application; other concerns or needs?]

19. If urine-derived fertilizers were the same price as the fertilizer you currently use, would you consider switching to it?

a. [PROBE]: If it cost less? The same?

b. [PROBE]: If it cost more?

20. How do you think the general population in your community would react to the idea of urine derived fertilizers?

21. How do you think your own customers would react to this idea?

22. What suggestions or ideas do you have about how to affect their thinking about this?

[PROBE: what types of language should be used? Peecycling? Urine-derived fertilizers? Something else?]

23. Who in your community do you believe has or should have the authority to make decisions regarding new infrastructure to facilitate urine recycling?

24. Who [or what agency] do you believe has or should have the authority to regulate the use of urine (or UDFs) as fertilizers?

25. Urine and UDFs are not currently approved for use on certified organic farms by the USDA National Organic Program; they are not specifically excluded either, because urine separated prior to going to a sewage treatment plant is not considered "sewage" which is not allowed. Do you think the NOP should certify urine or UDFs?

26. Would anyone like to add anything?

27. Thanks so much for your participation!

*NOTE: Currently urine is not approved for organic production by the National Organic Program and the Organic Materials Review Institute (OMRI). However, it is not NOT approved either. It is in a grey area at this point. It is not excluded, as biosolids are, because it is not a sewage product. It has not gone to a waste treatment facility.

FOCUS GROUPS minus Educational Intervention
FINAL REVISION 6/8/17

Good [morning/afternoon]. My name is [NAME]. I am a member of a University of Michigan [PROJECT] research team, and I will be leading our discussion today. Thank you for your willingness to participate in this focus group. We will be talking together for about 90 minutes, and we hope to have a rather relaxed and information discussion. [NAME] is also in the room. [S/he] works with me on the U of M research team and will helping me by taking some notes today.

Our research focuses on the use of human urine as a fertilizer. Diverting urine from the domestic waste stream and converting it into useful fertilizers for agriculture offers an opportunity to recover nitrogen, phosphorus, potassium, and trace elements from the food we eat while avoiding the energy and environmental burden of producing fertilizers using conventional approaches. This practice has the potential to reduce the economic costs, energy consumption, and chemical use for waste management; better manage trace constituents like pharmaceuticals; conserve water; and provide an alternative to synthetic fertilizers which may cause environmental harm. We will spend some time talking to you this practice, but today we are primarily interested in hearing from you. This topic may be new to you, and today we are interested in learning about people's reactions to this topic. We are interested in your experiences and opinions, and we are hoping to hear from everyone in this group. It is most valuable to us to hear as many different opinions as possible.

Please know that anything you say today will be held in strict confidence. The fact that you participated in this group will not be shared with anyone outside our research team, and your comments will never be associated with you personally. This is one of several groups that we are conducting, and results will be reported at the group level.

We ask that you respect the privacy of others in the room and not share the details of this discussion outside of this group, although it is fine to discuss the general concepts and issues we discuss here today.

We will be making an audio recording of the group so that we can accurately document your ideas. To facilitate our use of the recording, we ask that you speak one at a time. Although I will be guiding our discussion today by asking questions, I encourage you to ask questions of each other as well.

The discussion today will take approximately 90 minutes, (and you will receive a \$[AMOUNT] gift card at the start of our session as a token of our appreciation). We will not plan on taking a break, but please help yourself to refreshments at any point during the discussion. Restrooms are located [PLACE], and we ask that you turn off your cell phones during the discussion. If you need to take a call, please step out into the hallway.

I'd like to begin by having each person introduce themselves to the group. Please use only your first name and briefly mention what brought you here today in one or two sentences.

Let's begin:

1. Some researchers, farmers and homeowners are considering the process of diverting human urine from the waste stream and using it as fertilizer. Urine diversion refers to separating urine from solid waste at the source, so that the urine can be dealt with as a unique product. We'll talk about this in more detail shortly, but first we'd just like to ask – what are some of your first responses to this idea?
2. Researchers are considering multiple ways of implementing this process. Some people are considering using sanitized human urine as a fertilizer or using fertilizers derived from human urine, which we'll refer to today as UDF. I'd like to begin today by asking you to share your initial reaction to these ideas?
 - a. [PROBE]... sanitized urine [for example, it can be pasteurized at 80 degrees Celsius (176 F) for 1.2 minutes or 70 Celsius (158 F) for 30 minutes OR storage with high ammonia levels for 30 days]
 - b. [PROBE]... UDF specifically (for example a dry fertilizer that is made from urine)
3. In exploring an idea like this, it can be useful to share some background information. Urine contains nitrogen, phosphorus, and potassium and these are the essential nutrients found in fertilizer that stimulate plant growth. We are interested in knowing whether this information is new to you, or if this is something you're already familiar with. How much, if anything, have you heard about this idea before today?

4. As you know, there are many different uses for fertilizers. We are interested in learning your thoughts about the use of sanitized urine, or a urine-derived fertilizer (UDF) with various types of crops.

- a. [PROBE] ...crops for animal consumption?
- b. [PROBE] ...non-edible crops, such as flowers?
- c. [PROBE] ...crops for food that you eat?
- d. [PROBE] ...annual vs. perennial crops (like fruit trees)?
- e. [PROBE] ...thinking more about this, are there some crops that you would be comfortable eating if they were fertilized in this way but others that you would not be? (For example, leafy crops like lettuce vs. crops where you eat the fruit like tomatoes or peppers?)
- f. [PROBE IF NEC.]: Tell me more about the situations in which you are comfortable with the idea of using a sanitized urine or a urine-derived fertilizer (UDF) and those where the idea is more difficult for you to accept.

5. We are interested in learning more about how people choose the food that they purchase. What are some of your current criteria for choosing food – what do you look at or think about when you are making these choices?

- a. [PROBE] ...nutritional value
- b. [PROBE] ...where products are grown (local or not)?
- c. [PROBE] ...look for organic choices?
- d. [PROBE] ...do you think at all about how crops are fertilized when you make food purchases?
- e. [PROBE]: Are there other factors that influence your choices?

6. Would you buy or consume agricultural products which have been fertilized with urine or a urine-derived product? (Why/Why not?)

- a. [PROBE]: How would you feel about serving your friends and family foods grown with urine or a UDF? *[Note: in discussion, tease out whether people feel differently about urine alone or a UDF]*
- b. [PROBE]: Have you eaten food you have grown and fertilized with your urine? (Tell me more about that...)
- c. [PROBE]: How might you feel about eating food fertilized with other people's urine or a UDF?
- d. [PROBE]: How might you feel about eating meat products from animals fed with a urine or UDF-fertilized hay or grain?

7. Various methods for processing urine into fertilizer are being tested. [For example, techniques involving pasteurization and storage (as noted above – see question 2) are being developed to reduce potential pathogens.] What are your concerns, if any, about using urine or a UDF to grow edible crops?

8. Given what you know about this so far, do you have any positive feelings about this potential? If so, what are they?

9. Negative feelings? If so, what are they?

10. We have used the terms “sanitized urine” and “urine-derived fertilizer” or “UDF.” This practice is also sometimes referred to as “urine-diversion”, “urine recycling” or “pee-cycling”. In your opinion, what would be the best terminology to use to describe this process to someone for the first time? Why do you say that?

11. In our introduction today, I briefly mentioned that this practice has the potential to prevent pollution, secure an abundant source of nutrients for agricultural inputs, and conserve water. How much does this information affect the way you think about this idea?

a. [PROBE] ... Are there other potential consequences of the practice that might influence your thinking?

12. If diverting urine for use as fertilizer proved to be cost effective, and save utility costs in water treatment, how would this affect your willingness to accept it as a normal practice?

13. What additional factors would affect your thinking about the use of urine as fertilizer?

14. There is another aspect of this process that we would like to talk about. Collecting urine will require the use of new kinds of toilets. Urine-diverting toilets separate urine from other waste at the time of toilet use. In public places such as schools, stores, libraries or restaurants, would you be willing to try a new, urine diverting toilet?

15. How do you think the general population in your community would react to having toilets in the community that facilitated urine recycling?

16. Would you consider installing a urine diverting toilet in your home? If yes, how much would you be willing to pay for a urine diverting toilet?

1. [PROBE]: Would you be willing to install a urine-diverting toilet if the cost were less than \$250?
2. [PROBE]: \$250 – \$500?
3. [PROBE]: \$500 - \$1000
4. [PROBE]: More than \$1000

17. What questions do you have that need to be answered before you would be comfortable with the idea of urine diversion?

18. Who in your community do you believe has or should have the authority to make decisions regarding new infrastructure to facilitate urine recycling?

19. Now that we've discussed all this, let's take a quiet moment just to reflect on what we've talked about... [pause at least 30 seconds, preferably a minute] Do you have any other questions, concerns, or suggestions about this?

Rough Interview guide – Agricultural Educators/Trainers
Final Version 6/9/17

Guide for introducing the interview: Thank you for your willingness to participate in this interview about urine diversion and the use of urine derived fertilizers in agriculture. Your responses will be kept confidential and only shared in a group format. As you may know, urine is naturally rich in key nutrients that synthetic fertilizers use to stimulate crop growth. Treating and transforming urine into natural fertilizer may be an appealing alternative to synthetic fertilizer, while simultaneously making wastewater treatment a much easier and less expensive process. Our research to date suggests that urine diversion and nutrient recovery has the potential to reduce the economic costs, energy consumption, and chemical use for waste management; reduce the need for synthetic fertilizers which may cause environmental harm; better manage trace constituents like pharmaceuticals; and reduce water use. In order to prevent water from entering the wastewater stream, toilets called "urine diverting toilets," can be used. These toilets separate urine from solid waste at the time of toilet use.

As a fertilizer, urine is high in nitrogen and also supplies moderate levels of phosphorous and potassium. 1000 gallons of pasteurized urine contains the equivalent of 109 pounds of urea, 13 pounds of triple superphosphate, and 29 pounds of muriate of potash (KCl). Farmers participating in a demonstration project in Brattleboro, Vermont, have had good results applying the sanitized urine to hayfields without dilution. One of our research goals is to develop a concentrated product that can be applied directly to reduce labor requirements.

The purposes of our research are to: 1) better understand your interest in the potential of urine or urine-derived fertilizer as well the kinds of information and research results you would need in order to comfortably discuss this possibility with farmers with whom you work; 2) help obtain funding for further testing and feasibility studies both in environments suffering from high nitrogen/phosphorous loads and those without; and 3) document your thoughts about the use of human urine as fertilizer for various crops which will help us develop educational materials. Your responses contribute to this cutting-edge research on critical contemporary environmental and agricultural concerns.

Questions:

1. Please tell me a little bit about your work. What is your position? What type of farmers do you work with?
 - a. [Probe]: Size of Farm(s)

- b. [Probe]: How many farmers do you work with? How frequently do you interact with them?
 - c. [Probe]: Type of crops/animals
 - d. [Probe]: Conventional/Organic Farms?
- 2. Had you heard about urine diversion or urine recycling prior to this interview? What are your initial reactions to the idea of using urine or a urine-based fertilizer for crops?
- 3. Thinking about the potential pros and cons of this practice, what are some of the possible positive aspects, in your view? Please say more...
- 4. What questions and concerns would you have? Please say more....
- 5. Do you have any experience using urine or a urine derived product as a fertilizer? (Or know farmers or gardeners who have used it?)
 - a. [Probe if yes]: How have you seen it used?
 - b. What has been your experience with it? Benefits? Problems? Effect on yield? Effect on soil?
- 6. Comparing a urine-based fertilizer to conventional high-nitrogen fertilizers, what do you believe might be the difference in terms of effects on plants? Effects on soil and soil life?
- 7. Comparing a urine-based fertilizer to organic amendments, what do you believe might be the differences in terms of effects on plants? Effects on soil and soil life?
- 8. For which crops do you think a urine-based fertilizer would be most applicable? Why?
 - a. [Probe]: Animal feed? Edible crops? Perennials vs Annuals, leafy vs fruit or grain crops, etc.
- 9. Nutrient leaching from farms into waterways has become an important concern. Do you think using urine or a UDF as a fertilizer would be different in this regard than other fertilizers? If so, why? If not, why not?
- 10. If you were to consider using urine as a fertilizer, or advising others to do so, what technical information or research results would you need?
- 11. Thinking about the farmers with whom you work, what do you think they would feel about the use of urine or urine-based fertilizers?
 - a. [Probe]: Do you think organic farmers might respond to this idea differently than conventional farmers? What factors do you think would influence their thinking? Example: that it could be locally sourced? (as compared to other high-nitrogen fertilizers such as Chilean nitrate)
- 12. What would they need to know in order to make a decision about this practice?

13. In order to make this practice more wide-spread, what issues do you think need to be addressed? What are the regulatory hurdles that would need to be overcome?
14. Do you think your agency or institution would consider installing a urine-diverting toilet here? Why or why not?
15. Thinking about any of the concerns we have discussed, what do you think would be the most useful strategy to address these concerns?
16. What methods do you use disseminate information to farmers? What methods do you think are most effective?
17. Other questions, concerns, or ideas?
18. For our research demographic information, would you be willing to tell us your: age, gender, ethnicity, educational level and/or specific educational training (i.e. what field or discipline)?

Rough Interview Guide: Wastewater Treatment Facilities
Final Version 6/10/17

Introduction:

Thank you for your willingness to participate in this interview. Your responses will be kept confidential and only shared in a group format.

The purposes of our research are to: 1) understand current waste treatment procedures being used in your area; 2) learn from you about your specific area of expertise as it pertains to the possibility of urine diversion and re-use for fertilizer; and 3) provide data that can be used for further testing and feasibility studies. Your responses contribute to cutting-edge research on critical contemporary environmental and agricultural concerns.

Urine makes up less than 1% of wastewater volume but about 75% of the nitrogen and 55% of the phosphorus contributions to wastewater. As you may know, the same nutrients found in wastewater that can cause harm in aquatic systems if not adequately treated are critical to plant growth. Diverting urine from the domestic waste stream and converting it into useful fertilizers for agriculture offers an opportunity to recover the nitrogen, phosphorus, potassium, and trace elements from the food we eat while avoiding the energy and environmental burden of producing fertilizers using conventional approaches. And, according to a report from the Water Research Foundation (http://www.awwa.org/portals/0/files/resources/water%20knowledge/rc%20water%20conservation/residential_end_uses_of_water.pdf), nearly a quarter of daily water consumption in single-family homes is due to toilet flushing - so, if flushing were not necessary, a significant amount of water could be conserved.

Our research to date suggests that urine diversion and nutrient recovery has the potential to reduce the economic cost; energy consumption and chemical use for waste management; better manage trace constituents like pharmaceuticals; conserve water; and reduce the need for synthetic fertilizer which may cause environmental harm.

Interview Questions

1. Please describe the geographic areas in which you work?
 - a. [PROBE]: How urban or rural is this area?
 - b. [PROBE]: How large is the population served by this facility?
 - c. [PROBE]: Is agriculture a significant component of the area?
2. What would you say are the most pressing issues related to water use in your community?
3. Please describe the process your facility uses to treat wastewater?
 - a. [PROBE]: What aspect of that process, if any, is used to remove nutrients from wastewater?
 - b. [PROBE]: What challenges, if any, do you have around nutrient removal? Would it be helpful if N or P levels in your influent were reduced through urine diversion?
 - c. [PROBE]: Are micro-pollutants and pharmaceuticals addressed in your process? If so, how? Do you have concerns about this for the future?
4. Is your facility facing the need to upgrade? If so, what are some of the reasons for this?
5. What is the average daily flow of your wastewater treatment plant?
6. What percentage of your population is connected to the central sewer?
7. How many homes and businesses does your plant serve?
8. How many homes and businesses are using septic systems in your region?
9. Have you heard of source-separated urine diversion?
 - a. [PROBE IF YES]: What have you heard about this?
 - b. [PROBE IF YES]: From whom / where did you hear about urine diversion?
10. To your knowledge, has your facility or municipality considered implementing urine-diversion technologies?
11. Can you think of any ways in which urine diversion could benefit your facility or your community?
 - a. [PROBE]: Do you think urine-diversion could save your facility money? If so, why? If not, why not?
12. Can you think of any ways in which urine diversion could create challenges for your facility or your community?
13. What information would your facility need to have to support urine-diverting technologies in your community?
14. As we mentioned at the start of our conversation, some farmers and researchers are experimenting with using urine-derived products as fertilizer. What is your first reaction to this idea?
15. How do you think people in your community would react to the use of urine as fertilizer?
16. Do you have any additional thoughts or concerns regarding the potential of urine diversion, the development and deployment of urine diversion technologies, or the re-use of urine as fertilizer?
17. For the purposes of our research statistics, could you tell us your: Age, gender, ethnicity, educational level, and your specific educational degree or training?

Interview Guide –Legislators

Final Version – 6/1/17

Introduction:

Thank you for your willingness to participate in this interview. Your responses will be kept confidential. The purposes of our research are to understand current regulations and issues

surrounding urine-diversion and urine-derived fertilizer and to provide data that can be used for further testing and feasibility studies. We hope to learn from you about the environmental and agricultural issues you are involved with as a legislator, and your thoughts, ideas and concerns related to the possibility of urine diversion and the use of urine as a fertilizer.

Urine makes up less than 1% of wastewater volume but about 75% of the nitrogen and 55% of the phosphorus contributions to wastewater. As you may know, the same nutrients found in wastewater that can cause harm in aquatic systems if not adequately treated are critical to plant growth. Diverting urine from the domestic waste stream and converting it into useful fertilizers for agriculture offers an opportunity to recover the nitrogen, phosphorus, potassium, and trace elements from the food we eat while avoiding the energy and environmental burden of producing fertilizers using conventional approaches. And, according to a report from the Water Research Foundation (http://www.awwa.org/portals/o/files/resources/water%20knowledge/rc%20water%20conservation/residential_end_uses_of_water.pdf), nearly a quarter of daily water consumption in single-family homes is due to toilet flushing - so, if flushing were not necessary, a significant amount of water could be conserved.

Our research to date suggests that urine diversion and nutrient recovery has the potential to reduce the economic costs and energy and chemical use for waste management; conserve water; better manage trace constituents like pharmaceuticals; and reduce the need for synthetic fertilizers which may cause environmental harm.

Interview Questions

1. What part of the state do you represent?
 - a. [PROBE IF NOT MENTIONED]: How urban or rural is this area?
 - b. [PROBE IF NOT MENTIONED]: How many people live there?
 - c. [PROBE IF NOT MENTIONED]: How much of this area is made up of farms?
2. Please describe the specific legislative areas you are involved with (or, if the legislator is involved with a specific committee, ask about the work of that committee).
3. Can you briefly tell us what you believe are some of the most pressing environmental issues faced by the state and/or by the communities you represent?
4. We are interested in learning whether or not people are already familiar with the idea of urine diversion or urine recycling. Can you tell me if this is something that you have already heard about?
 - a. [PROBE IF NOT MENTIONED]: What have you heard about this?
 - b. [IF YES]: How does your committee learn information like this – what resources provide this type of information to you?
5. As you think about this process of diverting urine from the waste management system and using it as fertilizer, what benefits, if any, can you think of?
 - a. [PROBE]: Are there other advantages or benefits you think of that might be related to this process?

6. What do you think could be disadvantages or concerns about diverting urine for use as a fertilizer?
7. Has your committee ever discussed using urine diverting technology or the use of urine as a fertilizer?
 - a. [IF YES]: What types of things has your committee discussed regarding this issue?
 - i. Tell me more about the discussions – were members positive about the practice? Negative? Mixed?
 - b. [IF NO]: Do you have any thoughts about why this topic hasn't been discussed? Has the topic simply never been brought up? Would your committee (or the legislature as a whole) benefit from more information on the topic?
8. Are you aware of any regulations currently in place regarding urine-diversion and/or the use of urine as a fertilizer?
9. Which decision makers would need to be involved for these regulations to be changed?
10. What information would your committee need to know in order to consider developing legislation concerning urine diversion and recycling?
 - a. [PROBE]: Is there information related to the implementation or encouragement of urine-diversion technology and infrastructure and the use of urine as fertilizer?
 - b. [PROBE]: Is there information related to regulation?
11. What do you think your constituents would think about urine diversion and recycling?
12. What information do you think they would need to know in order to consider the use of urine-diverting technology?
 - a. [PROBE IF NOT MENTIONED]: What information would they need about the costs of getting started? Costs of maintenance?
 - b. [PROBE IF NOT MENTIONED]: What information would they need about learning how to implement and use urine-diverting technology?
 - c. [PROBE IF NOT MENTIONED]: What information would be helpful regarding the impact of the use of urine diverting facilities?
13. Do you have any other questions, suggestions or concerns?
14. For the purposes of our research, would you be willing to tell us your: age; gender; ethnicity; educational level; and specific educational training/degree?