


**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

1. Agenda

Topic	Lead	Start	Duration	Materials
Workgroup Meeting: Welcome Review Participant Meeting Instructions Review Agenda Approve Draft M4 Minutes Approve Updated Tour Q&A Updated Workplan Facilitator 11/16/22	Facilitator	3:00	15 mins	Working M5 Agenda Draft M4 Minutes M4 Evaluation Tour Q&A Final Version Updated Workplan
Public Comment Period	Public	3:15	10 mins	Public Comments (Link Expires 12/16/22) Password: Benton1!
Subcommittee Reports: Topic A.1. Landfill Size, Capacity, and Longevity Topic A.2. Past CUP Conditions Topic A.3. Legal Issues and Topic B.1. Land Use Review Topic C.1. SMMP	Subcommittee-Led Workgroup Discussions (15 mins each)	3:25	60 mins	Website: A.1. Landfill Size/Capacity/Longevity <ul style="list-style-type: none"> • Report Website: A.2. Past CUP Conditions Website: A.3. Legal Issues and B.1. Land Use Review Website: C.1. Sustainable Materials Management Plan (SMMP) <ul style="list-style-type: none"> • Report
Reintroduce Charges D and E	Facilitator	4:25	10 mins	Charge D (Legal Sub): a) Scope Tasks to Plan Hauling Reopener b) SWAC/DSAC Role Clarity and PC/BOC Criteria Use c) Code Change Timeline Charge E (New Sub): a) General History of Coffin Butte b) Report's EX/SUM c) Community Education
Next Steps: 1) Member Meeting Five Evaluation (Due Monday at 5:00 PM)	Facilitator	4:35	15 mins	https://www.surveymonkey.com/r/BCTTM5EVAL

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

2) Homework for Meeting 6: TBD 3) Next Meeting: 12/15/22 @ 3:00 PM 4) Open House Instructions				
Dinner and Open House Preparation	All	5:00	30 mins	
Open House: Six Stations 1) Process Overview 2) Landfill Capacity/Longevity 3) Past CUP Conditions Compliance 4) Legal Issues and Land Use Review 5) Sustainable Materials Management Plan (SMMP) 6) Community Education and Communication Plan	All	5:30	120 mins	
Adjourn	All	7:30		

2. Attendance

Organization Interest Group	WORKGROUP Member	Alternate	Polling	Ex Officio	Charge	Present
SWAC/DSAC	Joel Geier	Chuck Gilbert	X		All	X
SWAC/DSAC	Marge Popp		X		All	X
Planning Commission	Elizabeth Irish		X		All	X
Republic: National	Russ Knocke	Ginger Rough	X		All but C	X (both)
Republic: Local	Shawn Edmonds	Julie Jackson	X		All but C	X
Public	John Deuel		X		All	X
Public	Kathryn Duvall		X		All	
Public	Christopher McMorran		X		All	
Public	Ryan McAlister		X		All	X
Public	Mary Parmigiani		X		All	X

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

Public	Ed Pitera		X		All	X
Public	Louisa Shelby		X		All	X
Public	Catherine Biscoe		X		All	X
DEQ	Brian Fuller		X		All but D	X
Marion County	Brian May	Andrew Johnson		X	Only C	
Linn County	Shane Sanderson			X	Only C	X
Benton County	Daniel Redick			X	All	X
Benton County	Sean McGuire	Jen Brown		X	All	X

Benton County Staff

Benton County	Darren Nichols	X
Benton County	Greg Verret	X
Benton County	Inga Williams	X
Benton County	Linda Ray	X

Facilitation Staff:

ICM Resolutions	Sam Imperati	X
ICM Resolutions	Amelia Webb	X

3. Minutes

Topic	Minutes
<p><u>Workgroup Meeting:</u> Welcome Review Participant Meeting Instructions Review Agenda Approve Draft M4 Minutes Approve Updated Tour Q&A Updated Workplan Facilitator 11/16/22</p>	<p>Sam welcomes the group, notes where to find the Participant Meeting Instructions, and then reviews the Agenda. Sam goes over M4 Minutes.</p> <ul style="list-style-type: none"> - Joel Geier: Introduces motion to revise the M4 notes as per the recent email exchange. - Ed Pitera: Seconds the motion and suggests alternative ideas like using a transcript. <p>Sam holds a quick poll on the original motion: Substituting the language that Joel Geier presented in place of the existing</p>

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

	<p>Doug Pollock comments in the Public Comments section of the Meeting 4 Minutes. (See 07:53 – 10:00 of meeting recording.) 10 voting members present, 7 vote yes.</p> <ul style="list-style-type: none"> - Sam: In response to the alternative ideas raised by Ed, Sam explains that there already is a transcript with the recording and offers a paid transcription to serve as another alternative to this. He also suggests that people can bring in written statements if they would like or send in a written statement the next week to encapsulate the comment they made at the workgroup. These written comments would then be put into the appendix of the meeting minutes. - Ed Pitera: Agrees that written statements should be added in this way. - Marge Popp: Asks if there can be a clearer picture of the public and workgroup comments. Daniel explains how the comments are currently accessible on the meeting agendas via FTP's. <p>Sam: Goes over Tour Q&A changes – Joel approves. Sam: Walks through the Updated Workplan, noting that they added a new subcommittee to work on Charge E. (Louisa Shelby had already agreed to be on it.)</p>
<p>Public Comment Period</p>	<p>Schmidt Pathman: His company promotes research on Solid Waste Management and partners with Universities, national, and international organizations. Some of their concerns about landfills are: 1) the underestimation of methane produced by landfills and lessening organic materials thrown away, and 2) lessening cross contamination of recyclable materials, which can be better achieved with the sorting system they have designed. (Pending receipt (full statement) by speaker to be placed in Appendix A.)</p> <p>Debbie Palmer: Notes that the link to the FTP links is only good for a month. She also notes that she likes the need for fidelity between the oral and written public comments.</p> <p>Daniel: Explains that, yes, the links need to be reset each month. However, they will ensure the links are always updated and available.</p> <p>Dr. Skip Rochefort: (Associate Professor of Chemical Engineering at Oregon State University) He presents a recorded lecture/slideshow on how they have created a way to create diesel fuel from plastics using only heat. (See Appendix B for slideshow.)</p>
<p>Subcommittee Reports:</p>	<p>A.1. Capacity Subcommittee Report: Paul Nietfeld & Bill Broman</p>

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

<p>Topic A.1. Landfill Size, Capacity, and Longevity</p> <p>Topic A.2. Past CUP Conditions</p> <p>Topic A.3. Legal Issues and Topic B.1. Land Use Review</p> <p>Topic C.1. SMMP</p>	<ul style="list-style-type: none"> - They note who is a member and what the subcommittee is set up to do. They then explain how Republic Services records data based on when they can fly over the landfill to take it. They also explain how tonnage, density, and airspace are all different. They then walked through how Republic monitors cells for 30 years after closer to track changes in density, staying up on new regulations, etc. They also note that Republic has site plans filed with DEQ that document different elements of the landfill. Republic Services usually plans around 5 years when they're making estimates, but these predictions can't anticipate natural disasters, such as taking in debris from wildfires or the increase in solid waste due to COVID. For example, when Riverbank Landfill closed, it caused Cell 5 to fill faster than expected. - No questions were asked. - See: https://www.co.benton.or.us/cd/page/bctt-subcommittee-a1-landfill-sizecapacitylongevity <p>A.2 CUP Subcommittee Report: Ed Pitera</p> <ul style="list-style-type: none"> - He notes who is a member and shares the highlights they've been working on. They are continuing to refine their documents and are going through from the beginning of CUP conditions to discover what changes have been made. For example, the original CUP said Riverbend Landfill could give waste to Benton County for two years. Whether or not there was another agreement that allowed for the continuation has yet to be found. Ed then covered the action items for the subcommittee, particularly creating a timeline. - No questions were asked. - Sam: Notes that by the end of the process, they will produce a large document with many tables that will show this 50 year long timeline of CUP conditions. - Joel Geier: Asked how voting will be done at the end of the process given issues or so complex. - Sam: There will first be a discussion on how the Workgroup would like to vote, and then they will go through and poll on each section with 1-2-3 polling. The subcommittee should do most of the heavy lifting, so the Workgroup will not be polling line-by-line of the document.
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**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

- **See:** <https://www.co.benton.or.us/cd/page/bctt-subcommittee-a2-past-land-use-application-conditions>

A.3. & B.1. Legal Subcommittee Report: Elizabeth Irish

- She first explained how they were approaching the issue, then went over the group's to-do items for their next meeting. They explained that they are working with Republic to agree on how to address some of the more controversial topics. It's a pretty complicated issue and is turning out to be much less black and white than they might have thought going into the process. They have found that CUP Contracts do carry over, whereas other documents don't. During the meeting they held the morning of the 17th, Sam agreed to start working on a joint themes document for CUP and the Legal Subcommittee and having another CUP and Legal Subcommittee collaborative meeting.
- **See:** <https://www.co.benton.or.us/cd/page/bctt-subcommittee-a3-legal-issues-and-b1-land-use-review>

C.1. SMMP Subcommittee Report: John Deuel

- John explains what they have done so far and where they plan to go next. For example, they hope to begin creating their timeline. He emphasized that they are trying to avoid emphasizing what they think “should happen,” and instead make it very clear to future contractors what they want. This includes, but is not limited to, the 2040 Community Values document, state, and local goals for climate change, looking at models from other states, looking at long-term plans while also creating short-term action items, and ensuring the practices they use are both innovative and thoroughly documented as successful. He then went on to cover the ten major topics that will be in the table of contents.
- **Brian Fuller:** Brings up looking at households, which John agreed is important.
- **Joel Geier:** Brings up looking internationally, which John seconds.
- **Sam:** Reiterates for the work group that the SMMP is essentially setting up an RFP. So, for example, the RFP could say “please look internationally for new tech and best practices,” and then have an appendix item that cites specific countries or types of

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

	<p>technology they want the practitioner to look at. When practitioners are responding to the RFP, they will need to “sell” how they will be able to successfully do what is asked.</p> <ul style="list-style-type: none"> - See: https://www.co.benton.or.us/cd/page/bctt-subcommittee-c1-sustainable-materials-management-plan-smmp
<p>Reintroduce Charges D and E</p>	<p>Sam: Explains that Charge D will go to the Legal Subcommittee, but there are also additional matters. Charge E would be a new subcommittee that creates a general history. The capacity and CUP Subcommittees have their own, more specific histories, but this will create a large overview. The new subcommittee will also be responsible for putting all the parts each subcommittee has created together and creating a draft report executive summary. They will also be looking at public Outreach, making sure information has a clear protocol for dissemination with the public.</p> <ul style="list-style-type: none"> - <i>Marge Popp, Mary Parmigiani, and Ginger Rough volunteer to be on the committee with Louisa Shelby.</i>
<p>Next Steps:</p> <ol style="list-style-type: none"> 1) Member Meeting Five Evaluation (Due Monday at 5:00 PM) 2) Homework for Meeting 6: TBD 3) Next Meeting: 12/15/22 @ 3:00 PM 4) Open House Instructions 	<p>Sam goes over the Next Steps begins.</p>
<p>Dinner and Open House Preparation</p>	
<p>Open House: Six Stations</p> <ol style="list-style-type: none"> 1) Process Overview 2) Landfill Capacity/Longevity 3) Past CUP Conditions Compliance 4) Legal Issues and Land Use Review 5) Sustainable Materials Management Plan (SMMP) 6) Community Education and Communication Plan 	<p>Open House</p> <p>(See Appendix C for Open House Subcommittees’ Posters Notes.)</p> <p>(See Appendix D for copy of Paul Nietfeld chart displayed at A.1. Subcommittee table.)</p>
<p>Adjourn</p>	

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

4. Polling Issues

1: Substituting the language that Joel Geier presented for Doug Pollock’s current comments in the Public Comments section of the Meeting 4 Minutes.

WORKGROUP Member	Polling	Charge	Not Here	Abstain	Yes	No
Joel Geier	X	All			X	
Marge Popp	X	All		X		
Elizabeth Irish	X	All		X		
Russ Knocke	X	All but C			X	
Shawn Edmonds	X	All but C		X		
John Deuel	X	All			X	
Kathryn Duvall	X	All	X			
Christopher McMorran	X	All	X			
Ryan McAlister	X	All			X	
Mary Parmigiani	X	All			X	
Ed Pitera	X	All			X	
Louisa Shelby	X	All			X	
Catherine Biscoe	X	All	X			
Polling Totals:				3	7	0
EX-Officio	Polling	Charge	Not Here	Abstain	1	2
Brian Fuller				X		
Brian May			X			
Shane Sanderson				X		
County	Polling	Charge	Not Here	Abstain	1	2
Daniel Redick					X	
Sean McGuire				X		
Ex-Officio Totals:				3	1	0
Grand Totals:				6	8	0

RESULT: Consensus / No Consensus

Facilitator counts a Majority, so the group is going to move forward with making the changes.

Minority Proposal: None

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

5. ZOOM MEETING RECORDS:

Zoom Recording and Transcript: [Link](#)

6. MEETING CHAT:

- 00:54:17 **Debbie Palmer:** I have a quick comment - Debbie Palmer
- 01:02:05 **WG Joel Geier:** No sound on Skip Rochefort's presentation.
- 01:02:45 **WG Joel Geier:** OK, now there's sound.
- 01:44:20 **WG Joel Geier:** I wasn't at the SMMP subcommittee meeting because it was scheduled in conflict with my prior travel plans.
- 01:54:08 **IeRM P. Schmidt-Pathmann:** Excellent question Joel, as there are a lot of data and proven concepts in other countries often at lower costs offering more sustainable solutions.
- 01:58:15 **WG Joel Geier:** Philipp, thank you, yes, my question was prompted in large part by your remarks about cross-contamination of recycling streams, after seeing how Sweden is dealing with this issue. Co-mingled is definitely not the path forward.
- 02:09:01 **IeRM P. Schmidt-Pathmann:** In the background of my Zoom-Picture you can see one of the twelve State of the Art Recycling facilities servicing the City, State of Hamburg, Germany, put together by members of our EU team.

7. APPENDIX:

Appendix A:

Pending receipt of statement from presenter.

DRAFT

November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5

Appendix B: Dr. Rochfort's Presentation Slides

Presentation to Benton County TALKS TRASH
November 17, 2022

Dr. Skip Rochfort
Associate Professor of Chemical Engineering
Director, Polymer and Materials Characterization Laboratory
School of Chemical, Biological and Environmental Engineering
Oregon State University
Skip.Rochfort@oregonstate.edu



3

Waste Plastic to Diesel
Fuel in a Bench Scale
Pyrolysis Reactor:
Circularity in Plastics
Recycling on the OSU
Campus

PTF Team: Annika Czeck, Maddy Pasche, Brisa Sable, Tiffany Trinh, Mitchell Willhite, Alex Zhen, Molly McNulty (Harrisburg HS)
Mentor: Dr. Skip Rochfort;
School of Chemical, Biological, and Environmental Engineering




"Polluted by Single Use Plastic"
-people dump waste on a beach



Botswana Africa "landfill"
-people dump waste in a field

4

The Need


- Farms
- Islands
- Rural Communities

Agricultural Plastic Waste
AgriPlas (Brooks, OR)
-HDPE buckets
-Twine used for hay bales



3

Plastics and Pyrolysis



5

HDPE #2	LDPE #4	PP #5
		
		

7

November 17, 2022 BCTT Workgroup DRAFT Meeting Minutes #5

Pyrolysis - Alternative to Traditional Recycling

Oregon State University College of Engineering

- Pyrolysis or chemical recycling is the thermal degradation in the absence of oxygen to depolymerize plastics to smaller chain carbon products
- Can be done with any plastic, except PET.

$$\begin{array}{cccccccccccc} H & H & H & H & H & H & H & H & H & H & H & H \\ | & | & | & | & | & | & | & | & | & | & | & | \\ -C & -C & -C & -C & -C & -C & -C & -C & -C & -C & -C & -C- \\ | & | & | & | & | & | & | & | & | & | & | & | \\ H & H & H & H & H & H & H & H & H & H & H & H \end{array}$$

Polyethylene: A common polymer molecule

$\xrightarrow{\text{Pyrolysis}}$


$$\begin{array}{cccccccccccc} H & H & H & H & H & H & H & H & H & H & H & H \\ | & | & | & | & | & | & | & | & | & | & | & | \\ -C & -C & -C & -C & -C & -C & -C & -C & -C & -C & -C & -C- \\ | & | & | & | & | & | & | & | & | & | & | & | \\ H & H & H & H & H & H & H & H & H & H & H & H \end{array}$$

Octane: A volatile molecule found in diesel


6

Product of Plastic Pyrolysis

Oregon State University College of Engineering



\rightarrow



Post-consumer plastics.

Diesel-like Product

2

Kiln PTF Reactor



11

ON CAMPUS RECYCLING- Circularity

13

DutchBros Collaboration

Plastics to Fuel Cup Collection



Donate your used cup and contribute to our project. We use a process called *pyrolysis* to convert waste plastic into diesel-like fuel!

The Plastics to Fuel Project is a student-run research project at OSU. We run a 1 kg pyrolysis reactor that breaks up plastic in the absence of oxygen, which breaks apart the long polymer carbon chains into fuel-sized molecules.

More info about the project: www.plasticstofuel.com

Oregon State University | If the bin is full, please contact Dr. Skip please number: 503-737-4288 email: skip.owen@oregonstate.edu




14

DutchBros Cups:





15

November 17, 2022 BCTT Workgroup DRAFT Meeting Minutes #5

3D Printer Spools



16

Food Trays



17

Collaborators

AgriPlas (Alan Jongshap, Brook, OR) <https://agriplasinc.com/>
Agricultural Plastics Recycling

PDO Tech (Kevin DeWhitt, CEO, Brooks, OR) <https://www.ndotech.com/>
Commercial Scale PTF Reactors

Ocean Plastics Recovery Project <https://oceanplasticsrecovery.com/>
Scott Farling and Capt. Andy Schroder, Kodiak, AK
NOAA sponsored Ocean Plastics Recovery Trips and Education

Clean Oceans International (Capt. Jim (Homer) Holms, Santa Cruz, CA)
17 Pilot-Scale Project with PDO Tech <https://www.cleanoceansinternational.org/>

Acknowledgements :



**Oregon State
University**

Special THANK YOU
Helen Liu
Kiln Reactor Sponsor



20




School of Chemical, Biological, and Environmental Engineering

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

Appendix C: BCTT Open House Subcommittee Poster Notes

Dot Color Meaning:

When members of the public shared ideas, questions, or other comments when talking to a subcommittee member, the member wrote that feedback on the large sheets of paper on the wall behind their table. If other public members reflected on an already written comment, the subcommittee member added a red, yellow, or green dot sticker next to the statement to indicate the new member of the public’s reaction to the existing idea.

	Red = I do NOT support the statement
	Yellow = I support the proposal, but I would prefer to have it modified in some way to give it full support
	Green = I fully support the statement

Legal Subcommittee:

- Need more holiday cookies ●●●
- Question of regulating where waste comes from vs. regulating tonnage
- Can the County impose a height limit on the landfill?
- Can Rural residential zoned land be included in landfill conditional use permit?
 - E.g. for an access road?

CUP Subcommittee:

- Looking for *specific* information on the history of CB. ●
- What role -influence- does Benton County have in only contributing 12% of tonnage?
- Quality of life
- Visibility from road ●
- Impacts on neighborhood ●
- Trucks crossing from PRC ●
- Process for receiving community inputs ●
- Smell PRC - esp. From the north
- Access to a road to leave neighborhood during bad weather - esp. to get to the hospital.

Capacity Subcommittee:

- Const Matl sorting

November 17, 2022 BCTT Workgroup DRAFT Meeting Minutes #5

- Expand
 - Esp. wood waste - pellets, biofuel importance for CH4 reduction
- DIY channel v. Contractors

SMMP Subcommittee:

- Prepare the key questions constituents should answer in each topic
- Must get buy-in from SMMP economically and with government policy makers (see Deschutes County)
- Research zero waste communities
- Utilize standards (i.e. LEED) to establish policies / building standards to reduce /Prevent waste.
- How does the county measure progress toward achieving plan goals?
- PFDS - PFOA > Teflon SCDTH QOAKD Making liquids and waste sludge.
- Explain how recommendations will help the County achieve Vision 2040.
- How much material prevention recovery reuse would be needed to achieve % decrease in waste disposed by capita - Route it in value based on GHG or other high impact (toxicity social)
- Communicate cradle-to-grave(cradle) cost
- Integrate economic impacts and opportunities
- transfer stations with multiple functions
 - Inter modal
 - Transfer
 - Recycling transfer
 - C & D
- Outreach meetings - where they are - accessibility
 - invite input from local citizens and OSU /University Researchers with ideas. Strategies, new tech. To meet goals of the SMMP
- International examples

Education & Outreach:

- Meet groups where they are. Go to them to listen and present information ●●
- Meetings or elected officials and/or task force
- Promote Master Recycler Program
- Soap Creek V.N.E.Q.S. (Valley, Neighborhood, Environment, Quality, and Safety) (" V-necks") ●● (Debbie Palmer)
- Property management groups (Duerkson) ●
- The County's - Linn, Benton, Lincoln, Marion, Polk ●
- Communicated with teachers to teach info in schools ●●

**November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5**

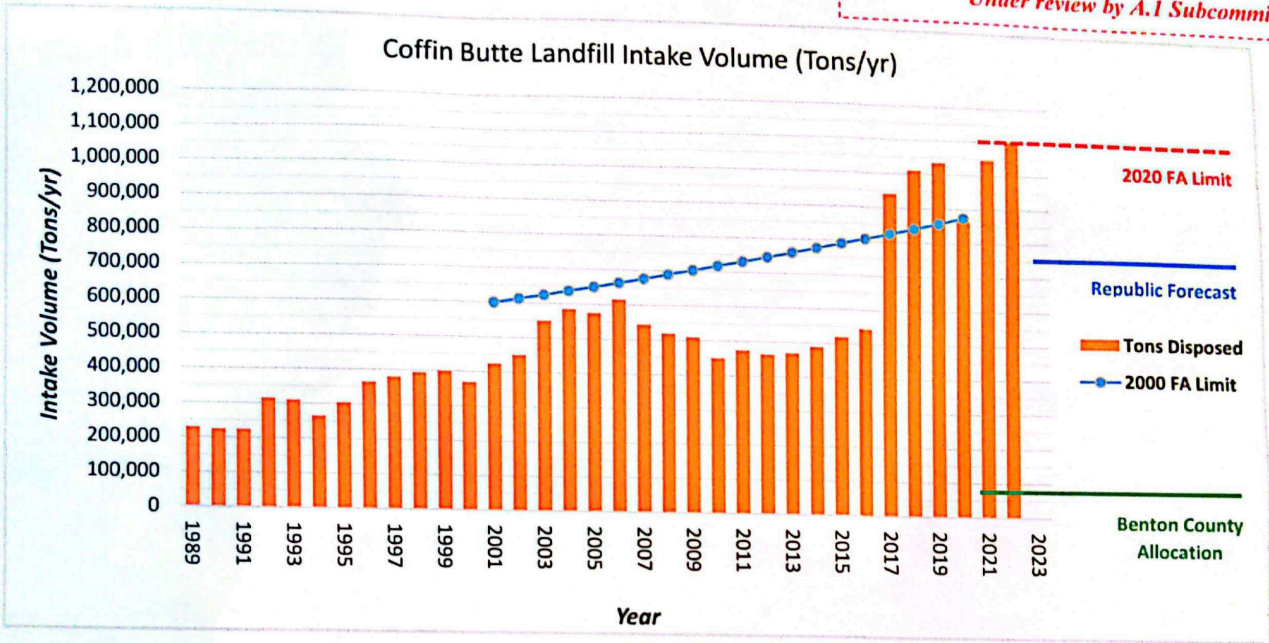
- Right now, we need to make sure the schools know about BCTT●
- Youth involvement ●
 - OSU / High School (CHS, CV, SC, SAHS, AOS, WAHS) ●●
- OSU extension services ●
- Corvallis sustainability committee (coalition) ●
- Republic Services ●
- Language choices for educational materials ●●
- Community incentives for solid waste considerations repurchasing ●
- Resources available for analyzing / comparing Solid Waste choices, cost vs benefits ●
- Social media
- Websites
- How to reach out to elderly? ALL - life-long learning ●
 - Community Center, Assisted Living
- Evaluate demographics for education ●
- Newspaper – events

November 17, 2022 BCTT Workgroup
DRAFT Meeting Minutes #5

Appendix D: Paul Nietfeld's chart from A.1. Subcommittee

Coffin Butte: Intake Volume History

*Presented to BCTT Workgroup 9/15/2022 by P. Nietfeld
Under review by A.1 Subcommittee*



- Large-scale industrial operation: 1.1 M Tons/year => 7,000,000 lbs/day, 6 days/week
- Dramatic growth starting in 2017 – *What happened to cause and sustain this?* *Riverbend disruption*
- The 2000 Franchise Agreement intake limit was violated in years 2017–2019 – *Why no County action?* *2016 MOU BC/RS*
- 2022 volume is estimated from first half 2022 filings with DEQ.
- Recent years show sustained high demand for landfill volume – *Does Republic plan to maintain this level?*
- Even a 5,000,000 cubic yard expansion cell would fill in less than 5 years at the current intake rate *TBD*

This plot shows why we (workgroup, staff, administration, the public and the franchisee) are here: Large intake volume in the last 6 years is quickly depleting the available Cell 5 volume.

