

Landfill Gas Emissions 2021 Rulemaking Advisory Committee

Meeting 3 – Draft Rule Change Review and Fiscal Impact Statement

Air Quality Planning

April 16, 2021

Remotely Held Meeting

Introductions

- Hello and welcome
- Purpose of meeting

Webinar Participation Tips

- **Thank you for joining us today!**
- Please join audio by either phone or computer, not both. We encourage RAC members to turn on your video.
- Please keep your audio on mute when not speaking.

Public Input Instructions

- Public input will be allowed at the end of the meeting as time permits
- To submit input after the meeting:
 - Kuoppamaki.heather@deq.state.or.us

Rulemaking Resources

<https://www.oregon.gov/deq/Regulations/rulemaking/Pages/lfg2021.aspx>

Primary Rulemaking Contact:

Heather Kuoppamaki, PE

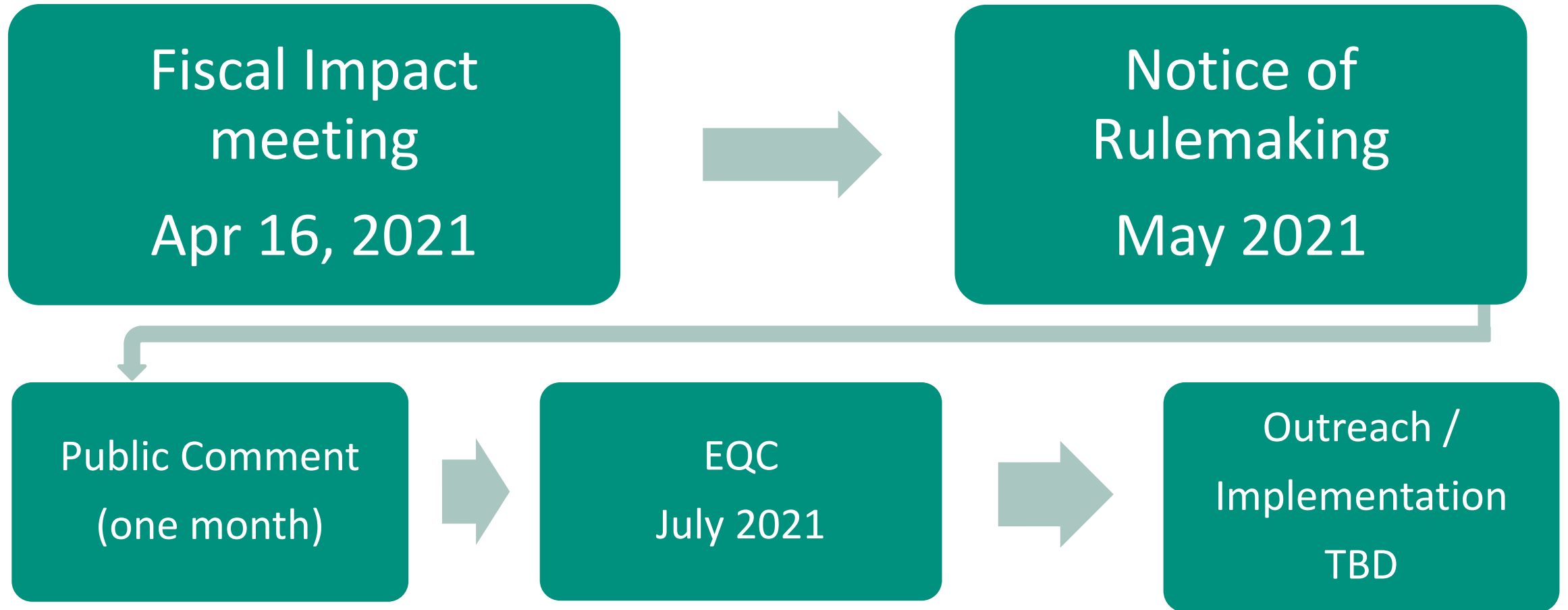
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Agenda

Time	Topic
11:30 a.m.	Meeting commencement
11:45 a.m.	Review and discuss changes to draft rules
	Break
1 p.m.	Review fiscal impact statement
2 p.m.	Public input
2:25 p.m.	Review next steps
2:30 p.m.	Adjourn meeting

Anticipated Timeline



Current Meeting Materials

- Updated Draft Rules
- Discussion Responses
- Draft Fiscal Impact Statement

Updates to Draft Rules

Landfill Age

Proposed change

Initial applicability date changed from Jan. 1, 1977 to Nov. 8, 1987

Potential methane emission impacts

None anticipated

Size Threshold

Proposed change

Waste-in-place threshold lowered from 408,000 tons (450,000 metric tons) to 200,000 tons

Potential methane emission impacts

- Potential reduction – smaller landfills will have increased requirements
- Actual reduction to be assessed as additional data is reported

Data Collection

Proposed change - Require the following additional data collection:

- Waste characterization in addition to waste amount received
- Landfills over 200,000 tons waste-in-place: annual visual cover inspections
- Methane Generation Rate Reports: include efforts to reduce landfill gas emissions
- Report all instantaneous surface readings 100 ppmv or greater

Potential methane emission impacts

- Potential reduction – additional cover inspections/repairs

Open Flares

Proposed change

Clarified language that open flares will be allowed under certain conditions past Jan. 1, 2024

Potential methane emission impacts

None anticipated

Temporary Shutdown

Proposed change – Temporary Shutdown

- Included shutdowns due to emergencies in required notification
- All other shutdown notifications must be included in the annual report

Potential methane emission impacts

None anticipated

Penetration Monitoring

Proposed change

- Reduce to annual if no detections for four quarters in a row
 - Any methane detection - return to quarterly monitoring
- Only applies to non-federally regulated landfills

Potential methane emission impacts

None anticipated

Phased Shutdown

Proposed change

- Post-shutdown monitoring can occur in phases
- 100-foot spacing for surface monitoring, offset by 25-feet each quarter

Potential methane emission impacts

None anticipated

Environmental Justice & Equity

No changes

Will revisit during 5-year rule review

Questions

Fiscal Impact Statement

Fiscal Impact Statement

What is Required?

- Agency must provide notice of fiscal impact for proposed rules
 - Impacts can be both positive and negative
- If significant small business impact, consider mitigation

Elements of the Fiscal Impact Statement

- Analysis of any significant fiscal impacts on
 - State and federal agencies
 - Local government
 - The public
 - Large businesses
 - Small businesses
- Possible mitigation measures for impacts on small businesses
- Housing cost

Fiscal Advisory Committee Process

Fiscal Advisory Committee:

- Reviews fiscal impact statement
- Provides observations and recommendations on:
 - Draft rule's fiscal impact
 - Extent of that impact
 - Significant adverse fiscal impacts on small businesses and potential mitigation

DEQ:

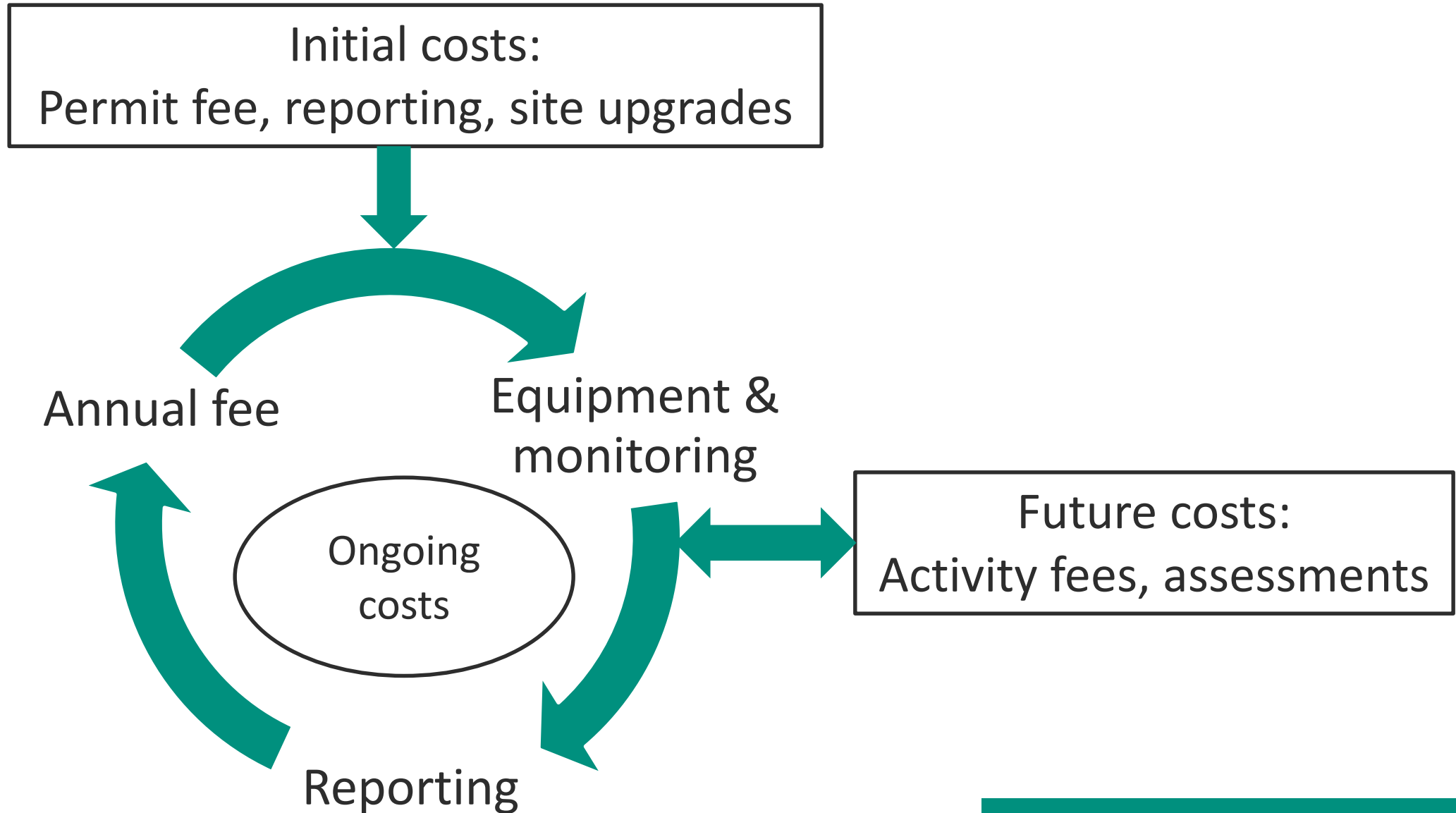
- Documents and considers committee input
- Revises fiscal impact statement if necessary

Fiscal Impact Questions

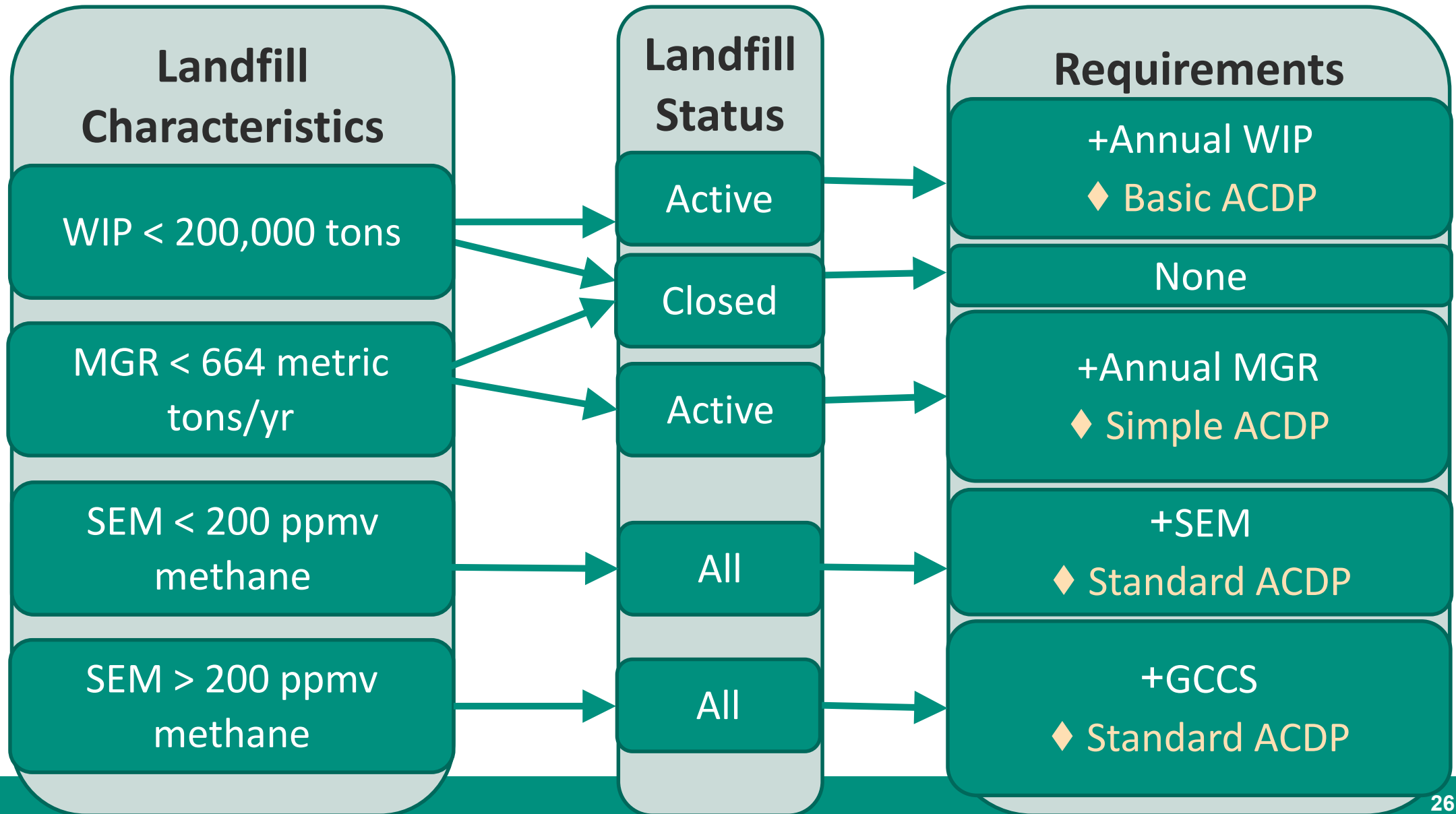
- Will the rules have a fiscal impact?
- What will be the extent of that impact?
- Will the rule have a significant adverse impact on small businesses?
- If so, how can that adverse impact be mitigated?

Fiscal Impact of the Proposed Rules

Fiscal Impact



Landfill Requirements



Air Quality Permit Types and Fees

Landfill Characteristics	Permit type	Initial Fee	Annual Fees ¹
Active landfills: < 200,000 tons of waste-in-place	Basic ACDP	\$180	\$799
Active landfills: Methane generation rate < 664 metric tons per year	Simple ACDP	\$9,000	\$9,446
Active and closed landfills: Surface emissions < 200 ppmv methane (all monitoring points)	Standard ACDP	\$18,000	\$18,984
Active and closed landfills: SE > 200 ppmv methane (any monitoring point)			

1 – Annual fees include permit fees, Cleaner Air Oregon fees, and Greenhouse Gas Reporting fees.

Estimated Compliance Costs

Proposed minimum requirement	Lump sum cost (2009) ^a	Per acre cost (2009)	Lump sum cost 2021 ^b	Cost per acre 2021
WIP Report	\$167	NA	\$260	NA
MGR Calc & Report	\$167	NA	\$260	NA
Surface Emission Monitoring	\$48,000	\$99	\$59,792	\$123
Upgrade GCCS	\$25,000	\$1,900	\$2,367	\$2,383
Install new GCCS	\$25,000	\$18,900	\$31,142	\$25,543

a. All 2009 costs: California Environmental Protection Agency, Air Resources Board, May 2009, Staff Report: Initial Statement of Reasons for the Proposed Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills

b. Costs updated to \$2021 using: https://www.bls.gov/data/inflation_calculator.htm

Future Activity Fees - Cleaner Air Oregon

CAO Activity ¹	Permit type / Fee		
	Standard ACDP	Simple ACDP	Basic ACDP
Existing source call-in	\$10,000	\$1,000	\$500
New source call-in	\$12,000	\$1,900	\$1,000
Level 1 Risk Assessment – de minimis	\$1,500	\$1,000	\$800
Level 1 Risk Assessment – not de minimis	\$2,000	\$1,500	\$1,100

1 – For more information on the fiscal impacts due to Cleaner Air Oregon, see the 2018 Statement of Fiscal and Economic Impact available: <https://www.oregon.gov/deq/Rulemaking%20Docs/cao-pn2notice.pdf>

2 – Website and contact information for Cleaner Air Oregon:

<https://www.oregon.gov/deq/aq/cao/Pages/default.aspx>

cleanerair@deq.state.or.us

Future Activity Fees - Permit specific

Specific Activity ¹	Fee range
Notices of Intent to Construct	\$0 or \$720
Permit Modifications	\$432-\$30,612
Modeling Review	\$9,000

1 – Not a complete list, see OAR 340-216-8020 Table 2 (ACDP Fees) and Division 220 (TV fees) for a complete list of specific activity fees

State, Federal and Local Government

- State – DEQ only
- Federal – None
- Local government
 - LRAPA: Implementation
 - LG owned/operated landfills: Permit fees and compliance costs

Potential Fiscal Impact to Public

- **No direct negative impact**
 - Local governments or businesses may pass costs to public
- **Potential positive impacts**
 - Reduction of greenhouse gas emissions and the impacts of climate change
 - Public health improvements

Potential Fiscal Impact to Large Businesses

Assumption

- Greater than 200,000 tons of waste-in-place

Potential Fiscal Impacts

- Simple ACDP or Standard ACDP
- Potential requirements:
 - Waste-in-Place Reports
 - Methane Generation Rate Calculations and Reports
 - Surface Emission Monitoring and Reports
 - Upgrade Landfill Gas Collection and Control System
 - Install new Landfill Gas Collection and Control System

Potential Fiscal Impact to Small Businesses

Assumption

- Less than 200,000 tons of waste-in-place

Potential Fiscal Impacts

- Basic ACDP
- Waste-in-Place Reports

Fiscal Impact Statement Input

Comment on the Fiscal Impact Analysis

- Will the rules have a fiscal impact?
- What will be the extent of that impact?
- Will the rules have a significant adverse impact on small businesses?
- If so, how can that adverse impact be mitigated?

Will the rules have a fiscal impact?

Comments:

- What constitutes a “fiscal impact” how much?
- Yes – the fees are increasing; sites will most likely need to raise fees
- Yes – definitely
- In CA – sites needed to review their rate models to cover the costs for compliance. The impact was passed on to the rate payers.
- The rule seems to have an impact on regulated entities – there is an impact on the public too. When considering the scope of the emissions from the facilities on the public the costs seem low compared to the public and climate impacts.
- There is a wide range of fiscal impacts due to climate change to the public. Reduced air pollution does have a positive impact on public health costs.
- EPA has data on public health costs.

What will be the extent of that impact?

Comments:

- Need to break it out by the different types of landfills. Different impacts based on if a site is a newly regulated entity.
- Need more information here. Consider an additional meeting to address this.
- What are proposed models to look at for avoided health care costs connected with air pollution reduction?
- Look at size of facility; closed or opened; initial capital costs; O and M costs; additional record keeping and how this is rolled up into the additional permit fees and the cost effectiveness of the program. Are we achieving the metrics we are looking for? What is the cost benefit?
- What is the total cost for annual operating combined with annual amount of the capital costs (over 10-15 year window) = total annualized cost for compliance with this rule. The denominator is the total metric tones reduction = cost effectiveness.
- Factor in the social cost of carbon emissions.
- How can we separate out the different causes of air pollution to know how these rules are decreasing methane reduction.
- How to factor in secondary pollutants from different management of the sites

Will the rules have a significant adverse impact on small businesses?

Comments:

- Until we have the final numbers it is difficult to know. Difficult to weigh in on this question without more complete numbers.
- Again, important to separate out the size of the sites.
- Include the municipalities and their unique challenges.
- Smaller landfills are more likely to not have existing requirements (starting from 0) . Need the total annual operating costs (see the notes in question above).
- What are the “new” costs to these newly regulated sites? What is the impact on these small businesses? What is the impact on the municipalities.
- Is there a way to generate revenue to cover the increased costs? This is particularly difficult for closed landfills with no revenue source.
- Additional information will help us answer this question with more confidence.
- Need input from AOC/LOC about impacts to municipalities.
- Based on the information currently shared by DEQ, the fees don't seem too cumbersome. Doesn't seem to rise to the “significant” level.
- Note that the costs in the table are a per acre cost; for smaller sites to comply the floor for costs is estimated to be \$1 million for medium sites the costs could be much higher.
- Need to be clear on how we are defining “small business”. The state defines “small business” as those with less than 50 employees; this RAC can define small business as it fits for the topic.
- Range of ways to define “small” in this context: # of employees; population; size of the landfill; ability of the site to cover costs;
- Look to CA for how they define “small” in relation to municipalities.

If so, how can that adverse impact be mitigated?

Comments:

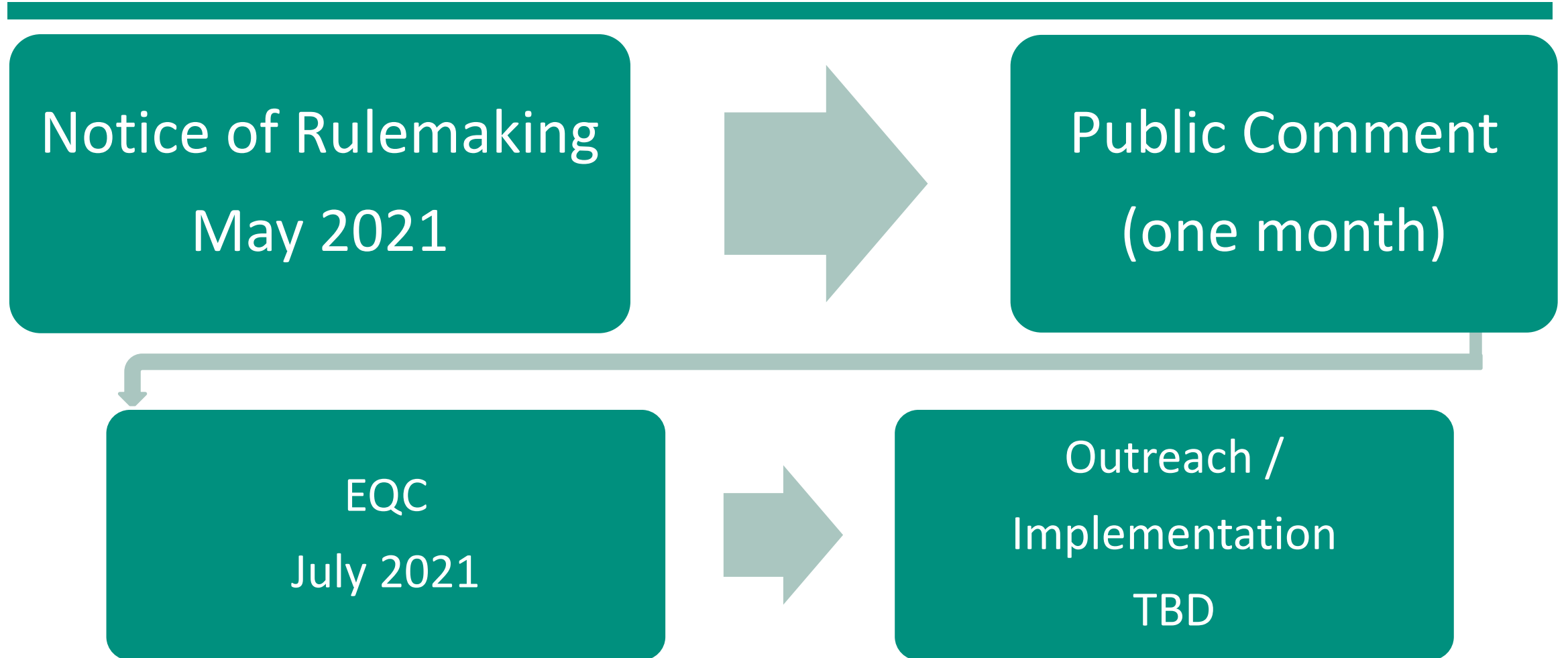
- Can funds be made available to help small businesses/small communities to offset compliance costs?
- Incentives for renewable energy. This is an energy source that could be utilized.
- Landfills that install gas collection systems can use it for their systems or sell back to the grid.
- Note that economies of scale of gas collection system investments may not work for the small sites.
- Raising rates for particular groups of customers that are producing larger quantities of waste (to incentivize reducing waste).
- Important to consider that the central reason why we are here is to reduce emissions; be mindful of perverse incentives.

Public Input

- Proposed draft rules
- Fiscal impact

The official Public Comment period will start in May

Next Steps



Questions

Thank you,

Rulemaking website:

<https://www.oregon.gov/deq/Regulations/rulemaking/Pages/lfg2021.aspx>

Sign up for govdelivery:

<https://public.govdelivery.com/accounts/ORDEQ/subscriber/new>

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Cleaner Air Oregon Website and Contact:

<https://www.oregon.gov/deq/aq/cao/Pages/default.aspx>

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