

Plastic Source Reduction Working Group Meeting #4 Agenda

June 18, 2020
8:30 AM to 12:30 PM

Via Zoom

Members of the public may attend the Zoom meeting by contacting Kyle Brandt at kyle.brandt@doh.hawaii.gov no later 12 Noon on June 17.

Our objectives for this meeting are to (1) recap our work; (2) review the recommendations coming from Permitted Interactions Group 1A; (3) discuss any other ideas for possible recommendations; and (4) discuss work needed for Mtg 5.

Note: this meeting will start at 8:30 am sharp. The Zoom will be opened at 8:15 am. The meeting may not run the entire morning and public comments will be taken at the end of WG member discussions. Break(s) will be taken as needed.

- 8:30 am** **Startup** (Peter Adler)
- Welcome back
 - Recap and Today's agenda
- 8:45** **Review of New Recommendations from PIG 1-A (Attachment-A)**
- Additional Ideas?
 - Fine Tuning
- 9:45** **Review of Amended old Recommendations (Attachment-A)**
- Additional Ideas?
 - Fine Tuning
- 10:30** **Discussion of Possible New Proposals for Recommendation**
- 11:30** **Discussion of the Life Cycle and Environmental Implications for Plastic Alternatives Studies Summary Table (Attachment-B)**
- Additional Ideas?
 - Fine Tuning
- 12:15 pm** **Next Steps**
- Planning for the next meeting
 - Review of the meeting plan
- 12:30** **Adjourn for Public Comments**

Virtual Meeting Specifications:

Connectivity Issues

The meeting will be recessed when audio communication cannot be maintained with a quorum of members and will be terminated when audio communication cannot be reestablished with a quorum of members.

Public Comment

In order to reduce the chance of overloading the video conferencing system, members of the public will be asked to turn off their cameras and microphones upon entering the meeting.

Written Testimony

Written testimony may be submitted to Kyle Brandt at kyle.brandt@doh.hawaii.gov no later than 24 hours to the start of the meeting (8:00 am, June 17, 2020)

Annex-1

The Working Group's Act-254 Seven Tasks

1. Formulate a plan for reducing and recovering plastic from the Hawaii waste stream;
2. Develop strategies to encourage plastic reduction and reuse in the food service industry, such as reusable container incentive programs for customers;
3. Provide recommendations to encourage reuse, reduction, recycling, and recovery of waste and create value added products to innovate and responsibly manage the life cycle of existing resources;
4. Consult with each county that has already enacted ordinances related to single-use plastics such as plastic bags and polystyrene foam containers and develop recommendations for the implementation of a uniform, statewide policy for these items that can replace existing county ordinances and provide businesses with laws that are consistent throughout the State;
5. Consult with stakeholders to develop appropriate exemptions to address concerns of health and safety, lack of suitable alternative products on the market, and lack of infrastructure;
6. Evaluate potential lifecycle and environmental implications of replacing plastic packaging with alternative products; and
7. Shall submit a report of its findings and recommendations, including recommendations for pilot projects for Hawaii businesses to phase out single-use plastic packaging, promote reuse, and find sustainable alternatives for packaging, as well as any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2021.

Attachment-A

Plastic Source Reduction Working Group Draft Recommendations

Introduction

Per the legislative mandate, the Act 254 Working Group has identified multiple ways for government, consumers, and local businesses to achieve greater statewide impacts and help accelerate the transformation to a more plastics-free Hawai'i.

With the recent COVID-19 pandemic and the anticipated economic aftermath, the Working Group recognizes that much of the State's resources will need to be focused on shorter-term economic strategies that reduce public expense and enhance public and private revenues. We know the state is in a tight spot.

Plastic source reduction actions that increase consumer costs, create new public expenses for innovative projects, or provide tax credits to businesses probably cannot be done until there has been sufficient economic recovery and will likely be deferred. Nonetheless, the Act 254 Working Group believes recovery may offer niche opportunities to accomplish the important long-term goal of plastics source reduction through economic recovery strategies.

When the legislature takes up the intents of Act 254, The Working Group recommends the following:

- 1. Create a uniform statewide plastic source reduction standard.**

Discussion

A uniform state standard that embodies the most stringent standards of the four counties has both advantages and disadvantages but must be implemented with care and precision.

On the advantage side, businesses must comply with one regulatory regime rather than four potentially different ordinances. Most enterprises and their business-to-business suppliers are accustomed to complying with various state ordinances. A uniform, statewide message (aimed at consumers) is more efficient to create and communicate and more likely to achieve traction. The state must also have a uniform enforcement protocol, presumably lodged in the DOH. If it is to be enforced by the counties, the counties must receive a substantial portion of their funding from the State of Hawai'i to accomplish this.

On the disadvantage side, counties are the unit of government closest to people. A statewide standard may inhibit the flexibilities that accompany home rule. More important, the four counties have very different demographics and very different tax bases. Currently, they have different recycling capabilities and waste management systems. This makes it difficult to achieve complete uniformity.

2. The new standard must be evolutionary and grown slowly.

Discussion

All the counties have laws and initiatives to reduce plastics but are proceeding somewhat differently. This means implementation of a state standard must proceed slowly and carefully with the Legislature's help. This would allow the counties to slowly harmonize their influence on consumer behavior and achieve greater disposal, reuse, and recycling. This has two implications. First, the state must work closely with all four counties to coordinate efforts and slowly raise everyone's capacity in a networked manner. Second, as part of the passage of a state standard, the state must be prepared to make financial investments in the ability of all four counties to meet a new standard.

3. The new standard should start as a policy and evolve to law or provide adequate time for affected entities to implement the new standard.

Discussion

Commencing a statewide standard has advantages and disadvantages. As law, it creates real uniformity, binds future leadership, and capitalizes and perhaps accelerates the movement toward going "green." It could take the form of a target law. Target laws lack implementation plans and only have due dates. They require baselines and can motivate implementation (e.g., By 2030, reduce plastic disposal by 50% based on 2020 disposal rates). Laws can also provide framework with clear direction on how to achieve said goals (e.g., By 2025, all retailers shall not distribute plastic carryout bags. Plastic carryout bags are defined as...). These laws will likely require further refinement through development of rules, in which case, the implementing agency will require authority to develop rules.

Policies are more malleable and flexible, may have shorter lifespans, and demand less commitment. They may be more vulnerable to the whims and tides of politics but may better accommodate important county differences. For example, each county has its own integrated solid waste management plan, manages waste very differently (e.g., County of Hawaii does not have curbside collection) and it is unlikely there will be full uniformity given the varying demographics. With state policy, counties may develop their programs with said guidance. Issuance of policies are not enforceable, but also will not require financial support by Legislature to provide or implement.

Finally, if a new standard is made into law, uniformity will be required and require enforcement. Like the earlier statement regarding rules, the implementing agency will also require authority to enforce and issue penalties. As with any new program, positions and appropriations will be required for state implementation and/or appropriations will be required for county implementation.

4. The new state plastics source reduction standard should not be weaker than the highest standards among the four counties.

Discussion

This will require a careful and coordinated balancing act and need the full participation and decision-making of all four counties and the implementing state agency, which we currently presume will be DOH. On the one hand, a new standard must build off the existing laws and practices of all four counties and must not be weaker than the strongest of the four county ordinances. Collaterally, it then needs to create incentives that help the weaker counties become more capable and for the state and counties to grow together.

5. Maintain a public list of each County's regulations and their differences.

Discussion

To enable a steady evolution towards a state standard and county harmonization, the Department of Health should maintain, regularly update, and publicize an accurate record of the evolving differences between the counties' differences. This also gives the counties a starting point toward harmonizing their ordinances.

The document serves two purposes. First it provides direct guidance to businesses. Second, it becomes a sentinel reference for the state and the counties to work toward progressively better synchronization. The Working Group has compiled and attached some initial tables which compare the evolving requirements of the four counties. This provides a good start and can be updated as implementation work emerges.

6. Update the DOH Health Code.

Discussion

Propose a specific plan and law changes that allow consumers to bring and use their own containers when making bulk purchases. Statute must expressly state that businesses serving consumers who bring their own containers are not liable for food-borne illnesses.

7. Create a single, inclusive, across-the-board 15-30 cent user fee on all single-use service ware items (plastic table ware and plastic bags, but not cups, lids, and containers).

Discussion

The 15-30 cent across-the-board user fee will apply to all single-use takeout service ware items and plastic bags. The fee is comprehensive and intended to create simplicity. It will be inclusive of the current plastic bag fee and all service ware (e.g., 30 cents for one, two, or all three plastic utensils (fork, spoon, and knife). Subject to revisions of food safety regulations, fees cannot be charged for cups, lids, and containers. Utensils will be provided to customers "by request" or "positive response."

Fees gathered will be used to support businesses. Businesses will retain all the fees collected but must treat those as income and pay GET. If the State chooses, as it often does, to take a portion of fee, the money should be paid into a single-use consumer education campaign for plastic source reduction and not used for general funding. If the fee were 30 cents, 25 cents would go to businesses and 5 cents to the State.

8. Enact a tax credit for businesses that invest in modern commercial reuse and washing equipment that reduce the use of plastics in the waste stream.

Discussion

Create a 10-year window (and sunset provision) for tax incentives that include the purchase of new sanitizing equipment or the start of new businesses that offer energy efficient dish and utensil sanitizing services to other businesses. Eligibility for tax credits could include businesses (e.g., grocery stores) that give consumers the option to purchase in bulk, while using consumers' own containers. The business must demonstrate that single-use plastics are discouraged or not offered, and that customer use of own containers is encouraged with signage.

The State and the Counties will save money in the long run by reducing the amount of waste they

have to deal with, but businesses need to be incentivized to make changes. Those changes will help drive consumer behavior.

9. Organize and conduct a pilot project that tests the efficacy and expense of making UV-C technology available.

Discussion

Out of an abundance of caution, many grocery stores across the nation are prohibiting the use of reusable bags and turning back to single-use plastic and paper bags. According to one study in the *New England Journal of Medicine*, germs appear to live longer on plastic than on paper. In the short-run, using single-use paper bags may be a better alternative than single-use plastic bags. In the long run, however, it will defeat solutions to source reduction.

UV-C technologies could potentially solve such problems. UV-C is a short-wavelength, ultraviolet light that breaks apart germ DNA leaving it unable to function or reproduce. UV-C light may be effectively germicidal if the technology can be scaled and additionally applied to reusable containers.

10. Establish a 5-year State-run education campaign about waste reduction.

Discussion

The campaign could be integrated with state goal setting and focus on altering consumer behavior and reducing dependence on single-use items. Since asking consumers to change in isolation will not produce long-range results, the campaign must explain in simple terms the web of connectivity and the relationship between supply and demand. The focus is to change the community's awareness, rather than trying to effect consumer-only changes. The State of Hawai'i might also set up a website that serves as a resource, but the campaign should be outsourced to a reputable marketing group and not done in-house by the state. Make the non-use of plastics cool and trendy and ensure that a committee tasked with this includes outside experts and not just state employees.

11. Accelerate community and regional composting.

Discussion

Industrial scale, centralized composting is an option, but an expensive one that has large transport burdens and social justice issues. A progressive approach that focuses on incremental moves away from expensive centralized systems include decentralized composting micro-grids that help create greater resiliency to natural disasters. There are many possible actions that can be taken: create small composting pilot projects with schools, farms, non-profits, and businesses to install in-vessel systems that will serve their specific communities; work with the Department of Health to review and upgrade composting permit regulations that currently represent significant barriers; fund pilot projects on all islands through grants; provide tax incentives to residents and businesses who set up community compost systems.

Other considerations in a program or policy might include the possibility of a labeling component. If an item has a Biodegradable Product Institute (BPI) label, it is safe to compost. Materials lacking BPI labels could be dangerous.

Composting offers an opportunity to create a value-added product for farmers and residents to increase food production, carbon sequestration, and reduce wasteful practices that don't treat

organic materials as a resource. As plastics are phased out of waste streams, compostable alternatives need to increase. Increased composting leads to healthier soils, which in turn expands opportunity for local food production and reduces the necessity for plastic wrapped imports to our state.

12. Undertake a fair and careful study of Extended Producer Responsibility (EPR)

Discussion

Conduct a comprehensive legislative study on the impacts of a possible Extended Producer Responsibility (EPR) law for packaging in Hawai'i. The study should incorporate lessons learned from and discussions with the 11 other states and the federal government that may be pursuing parallel efforts to implement EPR. The study should evaluate the best science available, costs and benefits to all stakeholders (i.e. environment, consumers, taxpayers, government, and businesses, etc.), and the pros and cons. The study should also analyze the costs and benefits of the following two specific scenarios: (1) EPR in Hawai'i independent of other state and federal packaging EPR initiatives and (2) packaging EPR in Hawai'i in conjunction or synchronicity with other state and federal initiatives."

Attachment-B

Life Cycle and Environmental Implications for Plastic Alternatives Studies Summaries

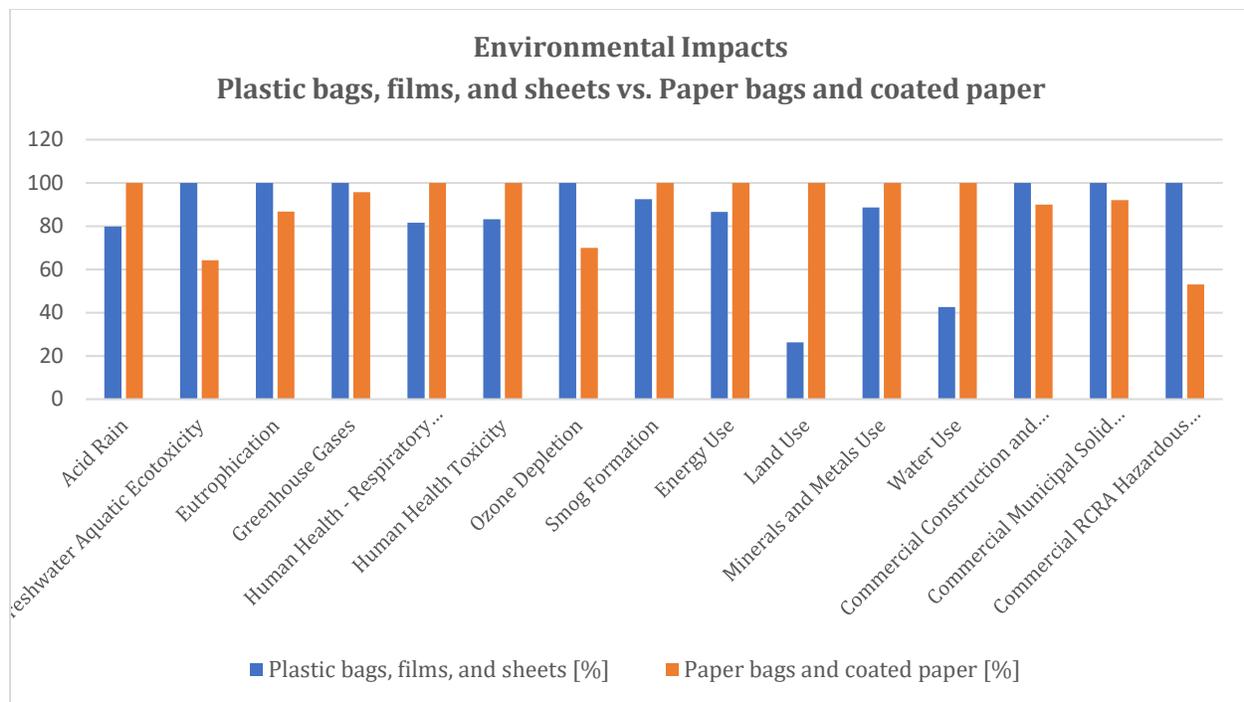
(Note: the following table is responsive to Act 254 Task #6 which reads Evaluate potential lifecycle and environmental implications of replacing plastic packaging with alternative products. The Working Group believes this is a technical task, not a policy matter.)

Source Information	Topic	Key Findings
<p><u>Title:</u> Single-use plastic bags and their alternatives</p> <p><u>Author/Organization:</u> United Nations environment programme (UNEP)</p>	<p>Plastic bags and alternatives</p>	<ul style="list-style-type: none"> • “The more recent LCAs included in this report confirm most of these conclusions, with some additions and modifications. In summary, they indicate that: • Single-use LDPE or HDPE bags rank worse than other bags in terms of littering potential. However, the ranking order of bags in terms of littering potential is more or less opposite to the ranking in terms of other environmental indicators (Civancik-Uslu et al. 2019). The weight of the bags contributes to this difference: making a bag heavier will make it more difficult for the wind to catch, hence reducing probability to become litter, but it will increase all other environmental impacts of the bag. • LDPE produced from recycled plastics or renewable resources has much less climate impact than fossil-based LDPE but does not solve the problem associated to impacts of littering. Bio-based LDPE is also worse than conventional LDPE in other environmental aspects (COWI A/S and Utrecht University 2018). • A reusable LDPE bag has lower climate impacts than conventional single-use plastic bags, if they are used 5-10 times more than the single-use bag (Edwards et al. 2011; Kimmel 2014; CivancukUslu et al. 2019). However, Kimmel (2014) finds that the average reuse rate in the US is 3.1 times. • Durable PP bags are heavier than reusable LDPE bags, but they are also more durable. For PP bags to be environmentally competitive with LDPE bags, they need to be used more times. • The data already suggest that they are used on average 14.6 times in the US (Kimmel 2014) which is approximately what is needed for PP bags to be competitive with conventional, single-

Source Information	Topic	Key Findings
		<p>use plastic bags (Edwards and Fry 2011; Kimmel 2014).</p> <ul style="list-style-type: none"> • A cotton bag must be used even more times to be environmentally competitive. Mattila et al. (2011) state that a cotton bag reused 50-150 times is likely to be better for the climate if the waste management system is dominated by incineration or efficient sorting and recovery of the waste. However, Edwards and Fry (2011) find that the cotton bag must be reused hundreds of times to be environmentally competitive to SUPBs. • Paper bags score worse than fossil-based single-use bags in terms of eutrophication, and often also on climate and other environmental aspects. Kimmel (2014) finds that the paper bag with 100% recycled fibers scores better than the kraft-paper bag in all environmental aspects, but still worse than the SUPBs in all impacts except acidification, and freshwater and marine toxicity. In contrast, Mattila et al. (2011) and Dahlgren & Stripple (2016) find that kraft-paper bags score relatively well in climate. Together the studies imply that a paper bag can be better for the climate than SUPBs, if the latter is heavy, if the paper is produced in efficient integrated mills driven by renewable energy, and if the waste-management system is dominated by recycling and incineration. They can also be environmentally competitive if they are reused several times (Edwards and Fry 2011). • A starch-based (biodegradable) bag has no significant environmental benefits compared to conventional SUPBs in the reviewed studies, besides reduced impacts of littering. It has a large impact on the climate because the production of fossil-based co-polyesters (COWI A/S and Utrecht University 2018) and because it is assumed to degrade in landfills, forming methane (cf. Mattila et al. 2011). • Adding a prodegradant to conventional HDPE (oxo-biodegradation) to reduce the visual impacts of littering might increase other environmental impacts, but only slightly since the degradable plastic bag is assumed not to degrade in landfills (Edwards and Fry 2011; Edwards and Parker 2012).”

Source Information	Topic	Key Findings
<p><u>Title:</u> A Brief Analysis of Life Cycle Analyses (LCAs) and the Impacts of Plastic vs. Paper Bags</p> <p><u>Author/Organization:</u> Californians Against Waste</p>	<p>Paper vs. Plastic bags, Analyses of LCAs</p>	<ul style="list-style-type: none"> • “Many of the existing LCAs for single-use bags have been funded by the plastics industry.” • “Estimates from the LCAs are often based on different assumptions due to the varying geographical locations of where they were written.” • “Closer analysis of reports with incorrect assumptions reveals that paper carryout bags have a reduced impact compared to plastic carryout bags particularly in regard to solid waste impact and [...] greenhouse gas emissions.” • “Paper bags are recycled at higher rates than plastic bags, will eventually biodegrade, and have a higher carrying capacity. These factors would help decrease the amount of solid waste generated despite an increase in paper bag usage.” • “Updated numbers from the EPA in 2009 showed that the paper bag recycling rate has increased considerably to nearly 50%, while the HDPE plastic bag recycling rate stayed fairly constant at 6.1%.”
<p><u>Title:</u> National Sustainable Materials Management Prioritization Tool (online tool)</p> <p><u>Author/Organization:</u> EPA</p>	<p>Paper vs. Plastic bags</p>	<p>Paper bags and coated paper</p> <ul style="list-style-type: none"> • Most significant potential environmental issues for the purchasing of paper: <ul style="list-style-type: none"> ○ Land use ○ Human health toxicity ○ Energy use ○ Commercial RCRA Hazardous Waste ○ Acid Rain • The most significant supply chain sources of these issues for this purchase are: <ul style="list-style-type: none"> ○ Paper ○ Timber and raw forest products ○ Wood pulp ○ Other basic inorganic chemicals ○ Electricity • *see graph below
<p><u>Title:</u> Life Cycle Assessment of Grocery Bags</p> <p><u>Author/Organization:</u> Clemson University</p>	<p>Comparing types of grocery bags</p>	<ul style="list-style-type: none"> • “Reusable LDPE and NWPP bags have lower average impact on the environment than [plastic retail bags] PRBs if reused a “sufficient” number of times. Quantitatively, what “sufficient” is will be determined by which environmental impact categories are important to the decision-maker.” • “For either PRBs or Paper bags, higher recycle content results, on average, in lower

Source Information	Topic	Key Findings
<p><u>Title:</u> Biodegradable Plastics & Marine Litter: Misconception, Concerns and Impacts on Marine Environments</p> <p><u>Author/Organization:</u> United Nations Environment Programme (UNEP), 2015</p>	<p>Marine Litter</p>	<p>environmental impacts, but these differences are much smaller than the differences among the various types of bags.”</p> <ul style="list-style-type: none"> • “The data in the present study, in which the entire Life Cycles of both Paper bags and PRBs have been examined, show that Paper bags are more detrimental to the environment in ten of the twelve environmental impact categories studied and, on average, are 4 to 7.5 times more detrimental to the environment vs. PRBs.” • Deciding what constitutes best environmental practice through the choice of different plastics and non-plastics is not straightforward. Life Cycle Assessments (LCA) can be used to provide a basis for decisions about optimal use of resources and the impact of different processes, materials or products on the environment. For example, LCA could be employed to assess the use of plastic-based or natural fibre-based bags and textiles, and conventional and biodegradable plastics. • In one LCA-based study of consumer shopping bags, conventional PE (HDPE) shopping carrier bags were considered to be a good environmental option compared with bags made from paper, LDPE, non-woven PP and cotton, but strictly in terms of carbon footprints (paper to cotton in order of increasing global warming potential (Thomas et al. 2010). This analysis did not take account of the social and ecological impact that plastic litter may have. • In contrast, an analysis of textiles – that included factors for human health, environmental impact and sustainability – placed cotton as having a much smaller footprint than acrylic fibers (Mutha et al. 2012). However, it is important to examine what is included under such broad terms as “environmental impact”. • A Third study which also performed an LCCA-based assessment of textiles concluded that cotton had a greater impact than fabrics made with PP or PET, and a much greater impact than man-made cellulose-based fibers (Shen et al. 2010). This was on the basis of ecotoxicity, eutrophication, water use and land use. • In conclusion, clearly the scope of an environmental LCA can determine the outcome.



Discussion

Generally, there is a growing number of studies that compare the life cycle and environmental implications of plastic bags and their respective alternatives. However, the results of each study must be carefully examined due to differences in variables assessed in each study (i.e. demographic information, environmental factors). We also note that plastic is the primary component of marine debris. Although life cycle assessments can measure several aspects of ocean health, biological impacts of marine debris are not included in the majority of life cycle assessments. The term 'environmental implications' should address consequences that are likely to happen, and care should be taken to not use the phrase interchangeably with environmental 'impacts,' which, when addressing biota, generally only address the populations that are threatened or endangered.

Attachment-C

Six-Meeting Plan for Act 254 Working Group

Mtg	PURPOSE	OUTPUTS	SCHEDULE	NOTES
✓1	Get introduced, get organized, lay foundation, and set tone.	Charter Reliable data Glossary of Terms	November 14, 2019	Completed with a few carry over tasks to be completed at Meeting #2.
✓2	Identify a “collective ambition” (vision) and frame possible long- term objectives.	Vision statement with a 15- year timeframe Gaps, speed bumps, and potholes on the road and the objectives they suggest Initial 1st pass at best ideas for Act 254 tasks 1-7 Establish Permitted Interaction Groups 1 and 2	January 9, 2020	Set up permitted interaction Groups (PIGs) 1, 2, and 3.
✓ PIGs #1 and #2 to bring forward proposals on Tasks 1-4 for Meeting #3				
✓3	Review specific draft proposals on Tasks 1-4 and achieve the highest levels of consensus possible initial recommendations for the full Working Group to consider.	Draft recommendations on 1-4	May 21, 2020	
✓ PIG #1A to bring forward refined draft proposals for task 4 ✓ PIG #3 was unnecessary and was not convened.				
4	Review specific draft proposals on Tasks 4, 5 and 6 and achieve the highest levels of consensus possible on initial recommendations for the full Working Group to consider.	Recommendations on 5-6	June 18, 2020	
DOH to do a first draft of the Working Group’s Report				
5	Review draft report and achieve highest level of consensus possible.	Second draft of the Working Group report and recommendations.	August 13, 2020 <i>(Proposed)</i>	
6	Final voting on Working Group Report.	Approval of draft	September 24, 2020 <i>(Proposed)</i>	