Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus

Infrastructure Research Subcommittee Meeting

Agenda

Tuesday, November 4, 1-3:30 p.m.

DEQ, 700 NE Multnomah St, Portland, Room 610 — *please sign in at reception on the sixth floor*

To see presentations and meeting materials login to https://www.webmeeting.att.com

Use meeting number: 877-336-1828 | *For audio, call:* 877-336-1828
Access code: 7760985 | *Access code*: 7760985

Purpose of meeting: for the subcommittee to understand updated scope of Phase 2 infrastructure research and provide feedback to DEQ.

Agenda:

Time	Task	Objective
1-1:10 p.m.	Welcome and introductions. Review purpose of meeting and objectives — Robin Harkless, Oregon Consensus, facilitator	Everyone is introduced, the agenda for the meeting is set and the purpose of the meeting is understood
1:10-1:15 p.m.	DEQ provides progress update on collection and processing research (Tasks 1 & 2) — Brian Stafki, DEQ	Shared understanding of status and upcoming work
1:15-2:10 p.m.	DEQ describes baseline system cost and material modeling research approach (Task 4) and receives feedback from the subcommittee — Brian, Peter Spendelow, and David Allaway, DEQ	Shared understanding of proposed research approach and feedback received
2:10-3:10 p.m.	DEQ describes scenario development and evaluation approach (Tasks 5 and 6) and receives feedback from the subcommittee. Discuss evaluation criteria for evaluating scenarios and receives feedback from the subcommittee — Brian, DEQ	Shared understanding of proposed research approach and feedback received
3:10-3:20 p.m.	Discuss updated upcoming activity for DEQ and the subcommittee — Brian, DEQ	Shared understanding of role/activities of DEQ and subcommittee
3:20-3:30 p.m.	Summarize next steps and adjourn — Robin, OC	Next steps are confirmed

Infrastructure Research Subcommittee Meeting Summary

Participating: David McCall — Tillamook County, Bruce Walker — City of Portland, Dylan de Thomas — The Recycling Partnership, Jeff Murray — EFI Recycling, Vinod Singh — Far West Recycling, Dave Claugus — Pioneer Recycling Services, Kristin Leichner — Pride Disposal

Cascadia Consulting Team: Jessica Branom-Zwick

DEQ Staff: David Allaway, Justin Gast, Peter Spendelow, Brian Stafki

Oregon Consensus Facilitation: Robin Harkless, Amy Delahanty

ACTION ITEMS

WHAT	WHO	By WHEN
Review and provide comments on Task 4	Subcommittee to Brian Stafki	COB, Wednesday, November 6.
Review and provide comments on Tasks 5 and 6	Subcommittee to Brian Stafki	COB, Monday, November 11

SUMMARY

Welcome/Introductions/Frame for the Day: Robin Harkless, Oregon Consensus, led a round of introductions and reminded the group of the purpose and objectives for the day, which were to: hear an update on the collection and processing research; DEQ to describe baseline system cost and material modeling approach with the group; review scenario development, evaluation approach and criteria; and discuss subcommittee next steps.

Update on Collection and Processing Research Timeline. Brian Stafki, DEQ, reviewed the updated Collection and Processing Research timeline with the Group. He noted DEQ is working on final steps to amend the contract and is nearly underway with Tasks 1 (collection) and 2 (processing) of the research. Brian shared Cascadia may have preliminary collection and processing results to share with the subcommittee and Steering Committee members in January. Brian then noted for Tasks 5-7 (scenario building & evaluation, and gap analysis), DEQ has initiated the process with its business office and will update the group as more details are known.

***Facilitator's note**: As a reminder, the tasks for the research are generally as follows:

Tasks 1 and 2: Collection and processing case study research — approach and scope discussed and confirmed at the previous Subcommittee meeting, work will be underway soon

Task 3: Education/compliance research— parallel process, will feed into results during scenario development. Approach and scope were discussed at the 10/22 Subcommittee meeting.

Task 4: Baseline system cost and material modeling — approach and scope discussed today

Task 5-6: Scenario building — approach discussed today

Task 7: Gap analysis/implementation planning — approach and clearer timeline not yet scoped, but will be shared at the 11/20 RSC meeting

Task 4: Baseline system cost and material modeling.

DEQ reviewed the Agency's proposed outline and approach to modeling the infrastructure cost and material baseline (loosely based on Oregon's system). This task will involve the development of a statewide model of the costs, quantity and quality of recycling, along with environmental outcomes. DEQ shared Washington State recently modeled their system, and found its in-depth approach was expensive and time consuming. In an effort to balance time, cost and accuracy, DEQ is proposing the following:

- Designate approximately four Oregon groupings broken down by community and service types;

- Project the baseline to 2025 based on growth factors and inflation;

- Include on-route and depot (not Bottle Bill or private recyclers);

- Measure the transactional costs e.g. capital and operation costs;

- Conduct an analysis of materials*; (*Peter Spendelow shared DEQ will use the data from Cascadia's research and break them out into different categories. They will also rely on the Waste Composition Study and other data sources for this effort.)

- Monetize environmental benefits.

Following the overview of the first five topics, there were several comments and questions from subcommittee members.

- *Question:* Are you breaking down service levels based on geographic areas?

  - *DEQ response:* It won't be pure regions, but cities and counties would be grouped into similar service levels, demographics and densities. For example, one service level could be cities and counties similar to Portland's model and geographic denseness. Another could be small rural counties that are primarily drop off only. We anticipate having a spectrum among the found service levels.

- *Comment.* Material types and quality are really important. We will get information about materials, but I anticipate that we will struggle with the quality. How will you accurately measure quality?

  - *DEQ Response*: We are going to quantify relative differences, not absolutes. For example, we will compare scenarios against the baseline and get the directional evaluation of costs.

- *Question*: Are the categories for materials seen as separate from each other, or will there be a level of overlap? How will you measure the baseline for outbound materials and how will you show that in your baseline?

- ○ *DEQ Response*: This could be reflected if we chose to build scenarios that differ from each other based on choice of markets. Peter Spendelow (DEQ) shared that to the extent they can, they will show various markets. For example, DEQ doesn't know the markets specs for markets overseas, or in Longview, Washington. In an effort to track quality, DEQ could analyze program materials that are collected, but that doesn't end up being recycled as a separate manifestation of materials.
  - ○ **Request:** DEQ will clarify in more detail what the baseline will look like and share this with the Steering Committee.

David then reviewed the proposed approach for monetizing environmental benefits, noting this is a new economic analysis feature that DEQ hopes to work into the research effort in an effort to stay consistent with Oregon's 2050 Vision — which calls for externalities to be accounted for and DEQ to set policy from the perspective of a full cost accounting. David offered that the evaluation of the estimated environmental impacts will be in addition to modeling traditional transactional costs. He noted DEQ's new Waste Impact Calculator will be used to evaluate and quantify environmental impacts, which will translate material flows into environmental outcomes. The outcomes will then be translated into a dollar amount, possibly using monetization factors provided by the consultancy TruCost, and the monetized social costs would then be considered with the transactional costs. David highlighted the Agency can only estimate a few environmental costs, but suggested DEQ is interested in better understanding this aspect of cost and sees this research and this process as the right opportunity to begin the inquiry.

Questions and comments:
- ● *Concern*: Comment about plastics ending up in the Pacific Ocean and how many thousands of dollars per ton are being added to some of the costs.
  - ○ *DEQ Response:* This research will provide directional estimates of environmental costs relative to transactional costs. The results might show a sensitivity to material type. Right now marine debris is <u>not</u> one of the impacts we can monetize, because we don't know how much plastic ends up in the ocean and the consequences of that. It will be one of the impacts that we won't be able to quantify.
- ● *Question*: Is the research also looking for where the costs cannot be determined in an area?
  - ○ *DEQ Response:* We will have scenarios and they will reflect different levels of infrastructure, different transactional costs, and estimated environmental impacts. They will be expressed in the same terms on the basis of dollars. There's a debate about the "right level of recycling." with the awareness that there is a threshold at which costs of recycling will exceed the benefits, and this research may shed some insight into that question.
- ● *Comment:* There might be footnotes calling out when we can't identify the costs e.g. some things probably have a high environmental cost, but since we can't quantify it, it comes out as no cost.
  - ○ *DEQ Response:* That's the risk. By assigning a dollar amount to some, we just have to be clear we aren't doing everything. However, this is better than the status quo, in which we

assign zero dollar value to all environmental costs. DEQ feels that more information, even if not ultimately complete, is generally better than less.

- *Comment:* This research will likely put us in a position of challenging what we consider to be "sacred" in recycling.
  - *DEQ Response:* We are understand and are prepared to be true to the science even if it runs contrary to popular wisdom.

ACTION ITEM: **Subcommittee members will send any additional feedback regarding Task 4 to Brian Stafki (DEQ) by November 6.**

Scenario Development and Evaluation (Tasks 5 & 6)

Brian Stafki provided a general overview of the scenario development, evaluation, approach and desired timeline. He shared that Task 5 will be the first round of scenario development whereby Cascadia will use input from the Steering Committee and foundational research from previous tasks to develop and evaluate several scenarios. Cascadia will develop up to five scenarios and conduct an evaluation of each against the baseline (Task 4) using established criteria. This evaluation will then be presented to the Steering Committee for their input. The results from the first round of scenario development will inform a second round (Task 6), which will be a similar, second iterative approach, resulting in three new scenarios being built for evaluation and potential modifications of the previous five scenarios.

- *Comment:* Concern was raised that the consultants, not the subcommittee, will be building scenarios. The worry is that they will establish the parameters for the scenarios, and that the experts in Oregon will not be assisting in the development. This concern is similar to that raised with regards to frameworks scenario building.
  - *DEQ Response*: in both cases of scenario development, it is the Steering Committee not consultant that will ultimately decide definition of the scenarios. We are proposing the consultant will come with straw person proposals to get the conversation started, rather than having a large committee work from a blank slate. As an approach, we could leave room within the first round of five for the Steering Committee to create one or two from scratch.
  - *Facilitator comment:* Robin acknowledged industry's desire to have direct input on how the scenarios get built and the compressed timeline. She offered to work with DEQ to find a reasonable approach to meet this need, and also encouraged subcommittee members to lean on the independent research consultant to work on their behalf.
  - **Agreement**: At the January 17th Steering Committee meeting, members will be invited to provide initial feedback on infrastructure scenarios and propose scenarios to be considered. This feedback will help inform Cascadia development of the scenarios.

Feedback on Potential Evaluation Criteria:

Brian Stafki reviewed the proposed draft evaluation criteria. David noted the proposed criteria were based on the SC approved Functions Document. Subcommittee members then provided general feedback to DEQ, which was the following:

- *Question:* Do the criteria allow for information regarding impact on each scenario relative to current transportation and processing infrastructure? E.g. stranded asset in one scenario versus another, or loss of jobs?

    - *DEQ Response:* DEQ will look at employment criteria and provide a refined definition. David shared this is a complicated criteria that needs more thought.

    - **Agreement:** Employment and the potential for stranded assets will be added as additional proposed criteria.

- *Question:* Would monetizing the externalities be folded under environmental outcomes or costs?

    - *DEQ Response:* Both.

ACTION ITEM: **Subcommittee members will send any additional feedback regarding Task 5 and 6 to Brian Stafki (DEQ) by November 11.**

Next Steps.

The Infrastructure Subcommittee will likely take a break from meetings until early 2020, though this may be subject to change depending on review and/or feedback needed around early research results. David shared the Cascadia team will likely reach out to some subcommittee members to obtain information about system costs. He noted the more information shared, the more accurate the baseline will be. DEQ hopes to have the model as transparent as possible, and acknowledged confidentiality concerns. To that end, he shared Cascadia has agreed they will not share sensitive information directly with DEQ that could become a public record, rather will hold information in aggregate form. Jessica Branom-Zwick (Cascadia) confirmed that they can also use non-disclosure agreements with individual companies when conducting interviews. After a brief discussion about confidentiality, it was proposed that Cascadia provide an initial list of questions (based on the needs of the research); conduct a small round of calls to get initial feedback; and at an upcoming SC meeting, have a small break out group of industry representatives to confirm the questionnaire. The goal is to gather comparable information (type and detail) across industry to get an accurate reflection for the baseline. David noted that timing might not allow for the small group meeting to happen concurrent with an upcoming SC meeting. Cascadia confirmed that they'll find a way to confirm the research approach with processors.

ACTION ITEM: DEQ and Cascadia will confirm timeline and approach for industry interviews.

Infrastructure Research Subcommittee Meeting

Nov. 4, 2019

Brian Stafki, Peter Spendelow, David Allaway, DEQ

Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus

Timeline

Collection (T1) and processing (T2) research
- Draft research plan (*completed*)
- Draft results

Education/compliance research (T3) and baseline system cost and material modeling (T4)
- Draft research plan
- Draft results

First round of scenario development and evaluation (T5)
- Draft scenario parameters
- Draft scenarios (5)

Second round of scenario development and evaluation (T6)
- Reconfigured new draft scenarios (3)
- Evaluation of original 5 with adjusted assumptions (as necessary)

Select final scenario and gap analysis (T7)
- Draft final scenario
- Considerations for implementation plan

Late Jan?

Feb?

Apr?

May?

2

Baseline system cost and material modeling (T4)

- Designate approx. four Oregon groupings (by service levels)
- Project baseline to 2025
- Includes on-route and depot (not Bottle Bill or private recyclers)
- Baseline system cost modeling:
  - Capital costs (equipment and facilities)
  - Operational costs (education, compliance, collection, processing)

Materials:
  - Material types
  - Quantities
  - Quality (where known)
  - Outbound markets/disposition
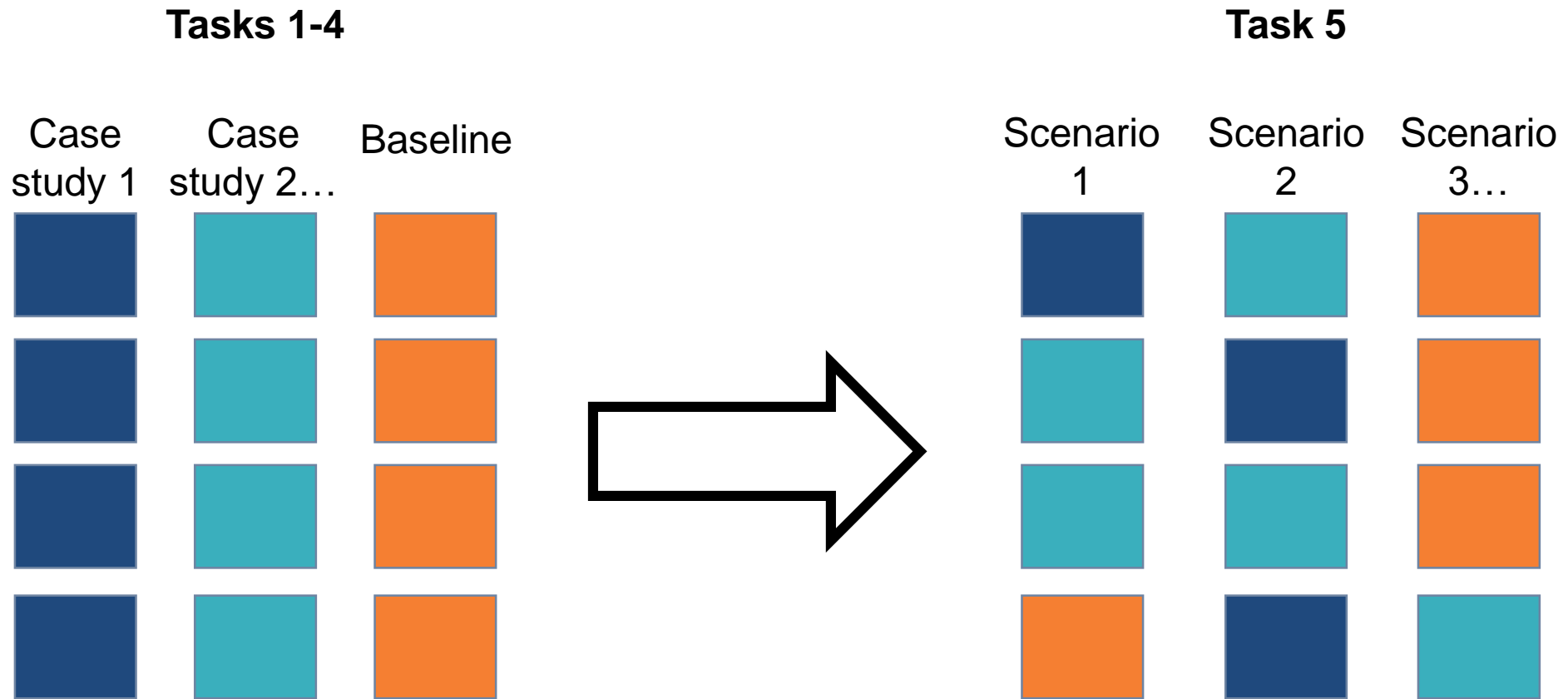
- Monetized environmental benefits

Recycling Steering Committee
Modernizing Oregon's recycling system with support from Oregon Consensus

Scenario development and evaluation

Task 5

- Use inputs from previous tasks to develop models and evaluation criteria
  - Costs (capital, operational, consumer-facing)
  - Equipment (types, capabilities)
  - Materials (types, quantity, quality, markets)
- Define up to 5 scenario performance parameters (*first draft by Cascadia and finalized by RSC*)
- Conduct evaluation against baseline (*Task 4*) and using evaluation criteria
- Present results

Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus

Scenario building and evaluation (*first round*)

Tasks 1-4

Case study 1

Case study 2…

Baseline

Task 5

Scenario 1

Scenario 2

Scenario 3…

Takes valuable elements (Legos) from case studies to create **five** scenarios

Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus
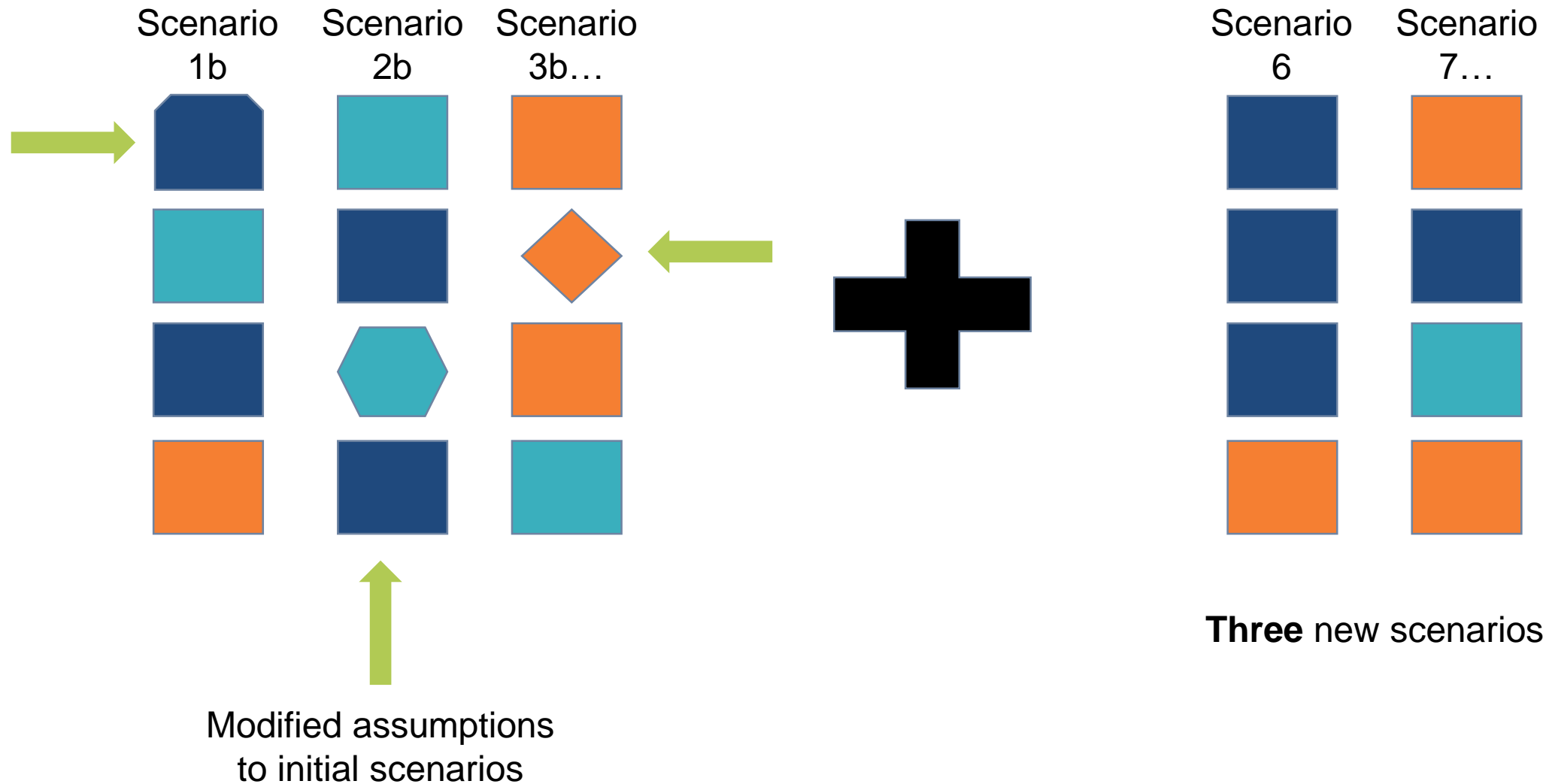
5

Scenario development and evaluation

Task 6

- Using results of previous scenario development (*Task 5*)
- Confirm assumptions of previous 5 scenarios or make adjustments
- Define 3 new scenarios with results for further evaluation
- Re-evaluate any previous scenarios with adjusted assumptions
- Evaluate 3 new scenarios
- Present results

Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus

Scenario building and evaluation (*second round*)

Task 6

Scenario 1b Scenario 2b Scenario 3b…

Scenario 6 Scenario 7…

Modified assumptions to initial scenarios

Three new scenarios

7

Potential evaluation criteria

- Cost
- Environmental outcomes (environmental value of end market, pollution reduced, resources conserved, etc.)
- Generator participation and acceptance
- Access to recycling opportunities
- Quantity of materials to reach markets
- Quality of materials to reach markets
- Resilient/adaptable (responsive to market changes, redundancy, reprogrammable)
- Other?

Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus

Upcoming next steps (2019)

- DEQ and Cascadia are finalizing the collection and processing research plan (T1 & T2) — this week?

- DEQ and Cascadia are finalizing the contract amendment for T1 & T2 research — next week?

- Discuss and get feedback at 11/20 RSC meeting:
  - Update on Phase 2 research (T1-2)
  - Revised Phase 2 research approach (T3-7)

- DEQ and Cascadia finalize contract amendment and research plans for T3 & T4 (Nov)

- DEQ and Cascadia prepare contract amendment for T5-7 (Nov/Dec)

Recycling Steering Committee

Modernizing Oregon's recycling system with support from Oregon Consensus