**Cooler Communities** *4/10/2019*

*Outlined below are options for moving forward with development of Cooler Communities.*

In reviewing the must have items and the scope of the project (Cooler Communities Digital Scope 12.19.2018) there are select items that we will not be able to create given time and budget. Enabling the ability for a user to edit or change data that has been submitted would require development we did not scope. None of the options outlined below will have the ability for an attendee/ resident to later revise their data submitted. They can resubmit and admin can modify entries in the database, but providing user access to that data after submission will not be possible.

|  |  |  |
| --- | --- | --- |
| *Resident edit their own data* | *Must Have* | *Intake* |
| *Resident login to go back and change commitment* | *Must Have* | *Intake* |
| Answer only questions related to my selections | Must Have | Intake |
| Select only a few categories | Must Have | Intake |
| Email recorded for follow up | Must Have | Intake |
| Commitment follow up steps | Must Have | Intake |
| Community filter | Must Have | Intake |
| Not have spam answers | Must Have | Intake |
| Limited open text responses | Must Have | Intake |
| Add entry on mobile phone | Must Have | Intake |
| Web interface or a text-based entry | Must Have | Intake |
| Options are various environmentally friendly actions | Must Have | Intake |
| Accounts will be distinguishable by community | Must Have | Intake |
| Calculate commitment by type | Must Have | Logic |
| Calculate total commitment by user | Must Have | Logic |
| Live user CO2 total commit | Must Have | Visualization |
| Visualization of community commitment | Must Have | Visualization |
| Live running total of all commitments | Must Have | Visualization |
| Sub group commitment visualization | Must Have | Visualization |
| Ability to show commitment has been achieved | Must Have | Visualization |
| Town admin receives data from community | Must Have | Visualization |

With the remaining project funds there are a few options we can pursue. Below are descriptions that outline the paths we can pursue.

***Option 1: Goal Commitments***

***Option 2: Before & After Survey***

Both options will leverage a Ruby on Rails application and a JavaScript library to intake responses from users and provide data collected to town admins.

**Option 1: “Goal Commitments”**

*Attendees make commitments that in combination drive towards an event CO2 reduction goal.*

Functionally each station (Yard/Landscaping, Solar Power, Heating & Colling Systems, Transportation etc.) will serve as place to make certain commitments that would help achieve a community level target. I see in some ways as a reverse Kickstarter. Kickstarter being a platform where if enough people donate a project get funded. In this case the attendees point commitments serve as the donation that help reduce a community C02 target.

**Example Solar station activities:**

* [Project Sunroof](https://www.google.com/get/sunroof#p=0) or other options set up to check potential at Kiosk / Computer
* Opportunity to learn about options pamphlets and experts
* One way kiosk or mobile selection to make a commitment (box = question)
* Questions ask and capture the net difference, not before and after
* Adjustment (slider) of certain variables in question (i.e. kw) will adjust point total

**Will you commit to installing a solar panel this year?**

|  |
| --- |
| Commit to **An Assessment = 1,175 points** |
| Commit to Purchase a **Solar Array** (**7kw) = 5,875 points** |

**Example Yard & Landscaping station questions:**

* Display average emissions for (mowers, lawns, fertilizer) and provide background
* Share opportunities at booth to take next steps (assessments, mower swaps etc.)
* One way kiosk or mobile selection to make a commitment (box = question)
* Questions ask and capture the net difference, not before and after
* Adjustment (slider) of certain variables (i.e. fertilize applications) will adjust point total

**Will you commit to?**

|  |
| --- |
| Commit to **replace gas mower with manual or electric = 396 points** |
| Commit to **lower frequency of mowing (#) times a year = 400 points** |
| Commit to **replace gas equipment for rake or electric blower = 194 points** |
| Commit to **reduce lawn footprint (size diff) = (C02 unit per Square ft)** |
| Commit to **reduce use of fertilizer (2) (applications per point)** |
| Commit to **get a free low maintenance lawn assessment = 137 points** |

Selecting commitments and providing your email (optional) or name will:

* Add their points to the solar commitment goal and to the total point goal.
* Provide a thank you screen with their commitment and the current point total of solar commitments made in addition to the overall event point goal.
* Add attendee’s info /commitment to database with API, update record if available
* Optional: Send an email to attendee with their commitment

**Technology:**

* Ruby on Rails
* [survey.js](http://surveyjs.org/)
* APIs
* Optional: sync of data with Airtable or Google Sheets
* Kiosks or mobile interface at event

**This option would not:**

* Documentation or capture the current state (before) of attendees carbon emissions
* Would not capture the savings ($) of each attendee
* Provide an option for attendee to increase their emissions (manual to gas mower)

**Option 2: “Before & After Survey”**

*Attendees provide both current state of their C02 emissions and choose target C02 emissions.*

While similar to option one this form will be capturing the event attendees current state. The additional configuration required for each question and logic will impact the scope and ability to deliver certain functionality. Based off the Google sheet there are 10 Categories with 30 goals questions and an additional 48 current status questions.

**Example Solar panel station activities:**

* Booth context provided on average counts to support estimation.
* Attendees can learn about new options from pamphlets and experts
* One way kiosk or mobile selection to make a commitment (box = question)
* Questions asked and capture both before and after
* Logic would be responsible for calculating the difference and displaying back the points

**Tell us about your solar use?**

|  |
| --- |
| How would you rate your home's "solar potential"? |
| Do you have an existing solar array? |
| If Yes What is the size of your solar array? |

**Will you commit to?**

|  |
| --- |
| Commit to a solar assessment |
| Commit installing a solar array |
| If "yes" to installing solar array, please enter KiloWatts: (x) |

Answering survey questions and providing your email (optional) or name will:

* Add their points to the solar commitment goal and to the total point goal.
* Provide a thank you screen with their commitment and the current point total of solar commitments made in addition to the overall event point goal.
* Capture data on current state and committed goal from attendees.

**Technology:**

* Ruby on Rails
* [survey.js](http://surveyjs.org/)
* APIs
* Kiosks or mobile interface at event

**This option would not:**

* Leave less time to stylize the visualizations
* Leave less time to stylize each question working and type
* Leave scope to build web sheet (Airtbale / Google Sheets) access to the data
* Leave scope to build ability to send an email to attendee with their commitment
* Provide an option for attendee to increase their emissions (manual to gas mower)

***Current Google Sheet of Questions Per Category***

Welcome block(6 Questions)

Solar-power - current status(3 Questions)

Solar-power - goals(2 Questions)

Heating and Cooling systems - current status(6 Questions)

Heating and Cooling systems - goals(1 Question)

Water Heating - current status(3 Questions)

Water Heating - goals(1 Question)

Lighting - current status(5 Questions)

Lighting - goals(3 Questions)

Transportation - current status(5 Questions)

Transportation - goals(8 Questions)

Reduce / Reuse - current status(2 Questions)

Reduce/Reuse - goals(2 Questions)

Home Appliances - current status(14 Questions)

Home Appliances - goals(6 Questions)

Eating - current status(2 Questions)

Eating - goals(2 Questions)

Yard/Landscaping - current status(5 Questions)

Yard/Landscaping - goals(4 Questions)

Weatherization and Thermostats - current status(3 Questions)

Weatherization and Thermostats - goals(1 Question)