My Washing Machine - Full Loads for our Future

**Your name, Class of \_\_\_\_**

**School, School District, City**

Impact Design **- Design the process!**

**1. Impact Statement** - If I commit to only running full loads when using my washing machine, then I will reduce my water footprint and save money.

**2. Community Alignment**

|  |  |
| --- | --- |
| Group | Goal/Action |
| [City of Kirkland's Water Division](https://www.kirklandwa.gov/Government/Departments/Public-Works-Department/Water) - Operates and maintains the city’s water infrastructure from parts of the South Juanita and Totem Lake neighborhoods southward  *- Water purchased from* [*Seattle Public Utilities*](http://www.seattle.gov/utilities) *through* [*Cascade Water Alliance*](https://cascadewater.org/)*, an association of regional water districts and cities* | In connection with Cascade Water Alliance, City of Kirkland is committed to water conservation methods. This includes Cascade Water Alliance’s adopted water-use efficiency goal to dedicate the necessary resources to achieve a cumulative, annual drinking water savings of 0.4 million gallons per day by December 31, 2022 |

**3. Procedure**:

1. Track current home washing machine behavior for two weeks. Mark each load as full or not full on a Google Spreadsheet.
2. Use washing machine details to calculate how much water my family is using to run the washing machine on average each week. See the “Data” section below to learn how to quantify this.
3. Communicate with family members and adjust personal behaviors to strive for 100% full washing machine loads.
4. Collect new data in my Google Spreadsheet by recording each washing machine load as full or not full.
5. Calculate how many gallons of water are being used to run the washing machine each week. Look for declining trends. As able, try to estimate the money saved from using less water.

Impact Tracking **- Quantify your impact!**

**4. Data:**

After looking into my dishwasher model, I’ve discovered that it averages **19.6** gallons of water per load.

*If a washing machine has different size settings, the full washing machine setting is still likely the most efficient. However, to improve the accuracy of data collecting, it seems like you can try to figure out how many gallons of water each size requires. You can adjust your data collecting and computation process to account for this and mark how many water you use for specific laundry loads.*

Initial Data:

Full Washing Machine Loads per Week: **3**

Not Full Washing Machine Loads per Week: **2**

(**5** loads)(**19.6** gallons of water per load) = **98** gallons of water per week

Data after Behavior Adjustments:

Full Washing Machine Loads per Week: **4**

Not Full Washing Machine Loads per Week: **0**

(**4** loads)(**19.6** gallons of water per load) = **78.4** gallons of water per week

**98** gallons of water per week initially - **78.4** gallons of water per week after behavior changes

= **19.6** gallons of water saved each week (1 load less)

x 52 weeks per year = Approximately **1019.2** gallons of water saved annually

**Extra Considerations:** I could take this one step further and figure out how much money I save my family annually simply by running our washing machine with full loads! We can look at our water bill together.

Impact Storytelling **- Share your data with who needs to know!** [**Impact Storytelling Tips**](https://docs.google.com/document/d/1do-KoX9J5onLrEEoSiKnmNWHYlk_jf0lJZ-ANkXCLMk/edit)

**5. Stakeholder Communication**

|  |  |  |
| --- | --- | --- |
| **Stakeholder** | **Interests** | **Approach** |
| Classmates | Sustainability | Casual conversations with peers about what I’ve been doing at home, gauge interest for others to do the same. |
| City Water Resource Managers | Saving Money | Share data and communication strategy through formal reports and meetings with city staff members. Emphasize shared goals. |