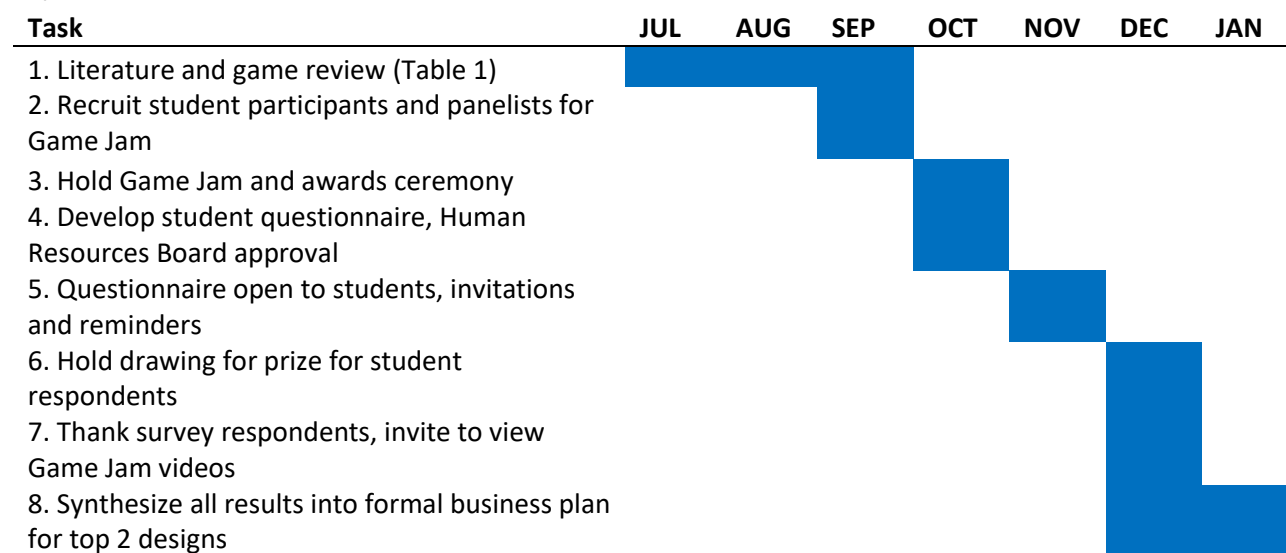**Supplemental Information for University of Washington Campus Sustainability Challenge: Feasibility, Addressing Committee Feedback, Table 1, References**

Accountability and Feasibility

Project Timeline

Task	JUL	AUG	SEP	OCT	NOV	DEC	JAN
1. Literature and game review (Table 1)	■	■					
2. Recruit student participants and panelists for Game Jam			■				
3. Hold Game Jam and awards ceremony				■			
4. Develop student questionnaire, Human Resources Board approval				■			
5. Questionnaire open to students, invitations and reminders					■		
6. Hold drawing for prize for student respondents						■	
7. Thank survey respondents, invite to view Game Jam videos						■	
8. Synthesize all results into formal business plan for top 2 designs						■	■

Project team
Project Manager: Lauren Kuehne, Research Scientist, School of Aquatic and Fishery Sciences
Graduate Student Managers: William Chen, Graduate Student, QERM/SAFS; Rachel Lee, Graduate Student, Communications – Digital Media

Project Readiness
The project is ready to begin, and all pieces are in place. A location to hold the Game Jam has been approved, a department is willing to financially manage the grant, and we have made initial contacts and a plan for how to engage with most project partners. The exception to this is Housing and Food Services, whom we would hope to work closely to obtain their feedback on feasibility of implementing a game in conjunction with or within residence halls, and the dominant sustainability needs on campus.

Project Stakeholders
The project partner we would work most closely with is UW Sustainability, and we have obtained their approval to support the project by general consulting, participation in a Game Jam, and offering feedback on a student survey. We will also rely on resources at the School of Aquatic and Fishery Sciences (where two team members are based) to host the Game Jam and for financial management. We have consulted with First Year Programs about the project, and intend to do the same with Housing and Food Services. All three team members are part of Earthgames at UW, which provides a supportive community for students working on environmental gaming.

Address committee feedback in your final proposal:

☐ *The Committee is in support of a feasibility study for the first stage of this project*

Thank you.

☐ *The Committee was in favor of incentive-based games, as they feel it would increase participation.*

We agree, and will focus on different types of incentives throughout the feasibility study. Incentives can be tangible (e.g., small items or awards for meeting goals or participating) or intangible (e.g., bragging rights, virtual trophies) and we will incorporate incentives that could be most effectively used in a UW campus challenge and how much they will cost into the formal business plan. UW Sustainability has already given us a list of ideas for simple, tangible awards that would likely be effective at promoting participation among students, and one of the members of our team has previously designed a game based around virtual trophies. We expect that some combination of tangible and intangible incentives will be the most fun and effective, such as a game where classes (or even campuses) can compete against each other for bragging rights and individual players also collect points toward something like a patch, water bottle, or t-shirt.

☐ *The logistics of game use should be further developed for the final proposal*

We have included Table 1 to demonstrate the different types of game formats that are available and the costs involved in maintenance and distribution. Although more information on implementation of different formats would emerge out of the feasibility study, we believe that a mobile, downloadable game (app) will be the most cost-effective way to engage a large number of individuals. The hosting requirements and costs are minimal, distribution is simple, and allows users to participate for any length of time. A mobile app also has flexibility in terms of being incorporated or pushed more prominently during live events throughout the year (e.g., Dawg Daze, Earth Week), or integrated with a website for competing against other individuals or groups (e.g., Habitica).

☐ *UW's Landscape Architect mentioned an app being developed for UW for a national architecture conference behind held on campus. It's for a "virtual-tour" of campus with some incentives for visiting locations. If interested in further developing this software with a Sustainability theme/gamification component, I'd be happy to connect you.*

We tried to follow up with this suggestion, but there seems to be no concrete plans to move forward on this right now. We would plant keep in touch about this potential however. We also plan to examine very closely the two sustainability competitions that we know of on campus currently, which is Recyclemania and One Thing Challenge. Both of these are annual live challenges that use campus resource data available for the residence halls. We were not able to coordinate a meeting with Housing and Food Services prior to submitting the proposal, but would definitely engage with them as early as possible in the feasibility study for both the possibility of leveraging what they already do into a game design and promoting a game to incoming students.

Table 1. Formats, platforms, and hosting options for creating a sustainability challenge or game for the UW campus. Although examples of all of these game formats will be reviewed for lessons learned and to assess ability to reach a broad and large student audience, we believe a downloadable mobile app (highlighted) will be the most cost-effective way to engage a large number of individuals over time. Games can also incorporate multiple formats; for example, a mobile app can also be web-based for competing with other individuals or groups, or incorporated with live events such as a scavenger hunt.

Game Format	Example(s)	Platform/Host	Hosting costs	Comments
Live competition	One Thing Challenge, Recyclemania	UW campus, participating local businesses	Varies, but usually inexpensive	• Can have a mobile/web app to accompany a live competition
Live-action game	Zombies vs. Humans, scavenger hunts	UW campus	Varies, but usually inexpensive	• Can incorporate existing booths/events at a campus-wide event • Can have mobile/web app to accompany live competition/game
Downloadable mobile game (app)	H20 Tracker, Habitica	Apple app store	$99/year	• Approval through Apple store can take time
		Google play app	$25 one time fee	• Less guidance if hosting or downloading issues arise
Facebook game	Half the Sky	Facebook	Free (but FB takes 30% of any proceeds)	• Can utilize the FB features • May require server availability
Web-based game	Spelunky, Hitchhiker's Guide to the Galaxy	Web (html5) hosted on private server website	$70-100/year for regular web publishing platforms with templates	• Can reach audience beyond UW campus
		itch.io	Free	
Board game	AdaptNation (Lee et al. 2015)		Variable depending on production costs	• Can feature at a booth at a campus-wide event

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