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Michigan State University
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Dear Janet,

Thank you for your interest in the matter of Spin electric scooters, bicycles, and other evidence of campus and urban living making its way into our Red Cedar River. While this problem has been heightened due to the chance discovery and retrieval of 225 lithium-ion powered scooters, 160 bicycles, and other evidence of campus living, this is a multi-generational problem that needs to be addressed.

With advances in technology, greater demand for, and accessibility to micromobility, a comprehensive approach is needed to prevent this problem from recurring and possibly worsening. This includes implementing effective preventive and deterrent measures which have been provided separately.

Here is the list of bulleted reference points that capture our concern and areas of interest:

- 1. Spin reports they have lost 156 scooters to the river since their start in 2021 ('21: 66, '22: 81, '23: 9).
 - Of the 225 total scooters that volunteers retrieved, we conservatively estimate that 80 90%, or ~191, were Spin.
 - Spin reports having retrieved 89 of their own, bringing the total lost rate to 280.
 - Retrieved Spin scooters from the river far exceeds what they report lost to the river.
- 2. Spin reports having lost only 9 scooters to the river in 2023:
 - Based on determining factors such as their cleanliness, retaining power, recency and location of the find, this figure greatly understates Spin's 2023 actual river loss rate.
 - With the volunteer support of MSU business students, on November 20 and after Spin removed their scooters from campus, we retrieved four recently tossed and abandoned Spin scooters to the river.
- 3. Spin reports a business practice of geofencing which is said to **restrict unauthorized parking and usage within 300' of the river**.
 - Parking: Spin maintains a staging station only 220' from the river at the northwest corner of Bogue Street and Auditorium Road:
 - This is 80' less than their claimed company standard practice.
 - This staging station is the likely source for most of Spin's lost scooters to the river.
 - Usage: With ease, we were able to walk Spin scooters from their Bogue Street staging station to the center of Bogue Street Bridge.
 - We deem Spin's geofencing is ineffective.
- 4. Spin reports they immediately retrieved all unauthorized parked scooters, including those parked within **300'** of the river, those tossed in the river, and those abandoned elsewhere.

- Errant parking and untimely retrieval of Spin scooters remains a problem today:
 - Such a known problem this subject was included in MSU & Spin planned research study.
 - This was a major factor why City of East Lansing revoked Spin's license to operate.
 - This is a major source of frustration among the general public as reported via MWS research.
- We retrieved ~191 scooters from the river, giving further evidence that their claim is false.
- 5. MSU and Spin are <u>funding 'two' studies</u> by MSU faculty members Dr. T. Teresa Qu and Dr. Rabindra Ratan. Work was reported to have begun the Fall of 2021, and then expanded in the Fall of 2022. The research was endorsed by Brice Nelson, MSU's Director of Corporate Partnerships:
 - This work was to be conducted with three MSU departments:
 - Department of Community Sustainability; Rose Murphy and Sarah Calvert.
 - School of Planning, Design, and Construction; Joey Allen.
 - Department of Computer Science; Jiayue Cha.
 - This work focused on several topics, including:
 - Vandalism.
 - Parking safety.
 - Errant parking.
 - How messaging and social cues can influence user behavior.
 - We have asked MSU and Spin for an update and to review either preliminary or final results;
 - Those at MSU whom we reached out to were either unaware of its status or did not respond.
 - Spin reports that, "Research is still preliminary, researchers are still running tests for statistical significance."
 - How can research so important, in an ecosystem considered ideal, take 1, 2, or 3 years to complete?
 - Why is Spin conducting tests of statistical significance on work that was to be conducted by MSU's Dr. T. Teresa Qu and Dr. Rabindra Ratan?
- 6. Spin reports, "We have been working very closely with MSU on all elements of the program over the past 2+ years, including the concern of scooters ending up in the river." They add, "We have collaboratively developed strategies to mitigate this concern with the University."
 - Because the research MSU is conducting includes the specific topic of vandalism, which is central to our discussion here, we asked Spin:
 - Have you been reporting to MSU the enormity of your known lost rate to the river?
 - Spin did not answer.
 - If Spin has not been reporting their learnings from the onset, then:
 - It would impair the effectiveness of the research agreed to.
 - It would be contrary to their claims of being the best partners, collaborative, and transparent.
 - It would be unreasonable for Spin to not disclose their loss rates because:
 - It was a major component of the MSU and Spin research project.
 - They would greatly benefit from their learnings here at MSU:
 - ► The profit impairment for COGS write-off of 280 scooters is ~\$210,000.
 - * Per an average \$750 unit cost based on \$500 and \$1,000 figures provided by Spin.
 - Then you add direct costs for search and recovery efforts, impoundment fees, warehousing, and disposal.

- 7. Being that a **CORE MISSION OF EACH ORGANIZATION** is to be environmental stewards (see below) we must ask, are we acting in a manner consistent with our mission?
 - MSU: To serve as an enterprise resource and convener for advancing sustainability.
 - SPIN: Committed to being the best, most equitable, and most sustainable mobility solution.
 - BIRD: Committed to enabling a more liveable and sustainable future.
 - MWS: To protect, care for, and improve our treasured and vulnerable waterways.
- 8. Additional questions that are being asked that remain unanswered:
 - How much has MSU and Spin spent on the 'two' studies by MSU faculty members Dr. T.
 Teresa Qu and Dr. Rabindra Ratan?
 - When will these two research projects be completed?
 - These studies remain incomplete 2-3 years later.
 - When did Spin reveal with MSU, City of East Lansing too, of this emerging problem and the high abandonment rate of their electric scooters?
 - When the enormity of this problem was revealed in July of 2023:
 - Where was Spin's offer to help with the retrieval of their remaining scooters?
 - Where was MSU's outrage, their interest to learn more, demand for greater accountability, and sense of urgency to resolve?
 - Has Spin been revealing this emerging problem to other universities and municipalities?
 - Who does MSU and Spin feel is responsible for the time, effort, and costs for the search and recovery of Spin lithium-ion powered scooters lost to the river?
 - Does MSU accept the practice of their commercial partners abandoning product(s) lost to the Red Cedar River?

We were alarmed by our first discovery the problem of lithium-ion powered scooters abandoned in the Red Cedar River in December of 2022.

We were shocked by the subsequent discovery in July 2023 that the problem was far greater than we imagined. Then there was the added revelation, as evident from our retrieving bicycles from the 50s and 60s, and appliances from the 60s and 70s, that this is a multi-generational problem.

A new approach was needed.

It is our mission to protect, care for, and improve our treasured and vulnerable waterways. In the absence of effective management and subsequent response from MSU and Spin, Michigan Waterways Stewards felt compelled to continue to independently act and lead. <u>If we did not reasonably respond we</u> would not be acting true to our mission.

We accepted the challenge and have completed our work at enormous real and opportunity costs. We continue despite having been the recipient of intentional obstruction, damaging slanderous comments, and even a lack of follow through on promises of modest financial support.

MICHIGAN WATERWAYS STEWARDS AND PASSIONATE VOLUNTEERS HAVE GENEROUSLY GIVEN:

- MONTHS OF RED CEDAR RIVER STEWARDSHIP CARE.
- **CONSUMER RESEARCH** conducted and shared (September 2023, 59 pages) to allow for an improved understanding of the general public's thoughts and opinion.
- A COMPREHENSIVE CAMPAIGN was created and shared (October 2023, 19 pages). It includes awareness, education, and deterrence measures to help stop these types of occurrences.
 - This campaign under the title of "Love Our Waterways," has been well received by all.
 - City of Lansing, Potter Park Zoo, and Spin to begin implementing parts beginning this spring.
- **CONSISTENTLY REACHING OUT** to engage, meet with, shared our findings and recommendations, and offering our support with all stakeholders.
- AND FINALLY, A ROADMAP for MSU, and Spin too if shared, to self-audit and improve.

We continuously seek to improve and better manage:

- We will be purchasing additional equipment, approximately \$10,000, to make our search and retrieval efforts easier, safer, and more efficient.
- An operations and water safety specialist has been added to our team
- Two environmental education specialists have been added to our team

We pray that MSU takes advantage of the insights provided to improve overall effectiveness:

- Conduct a reasonable review of those missteps made.
- Accept responsibility for those missteps and seek to do better.
- **Share** those valuable insights and effective actions taken to benefit other universities and municipalities across the globe.
- **Demand** improved performance from Spin.
- **Tighten** the conditions of the next Spin contract by requiring greater transparency, accountability, and performance.
- **Begin** implementing components of the Love Our Waterways campaign.

We urge MSU to act with a sense of alarm and urgency as spring is just around the corner. Without real change, and if Spin is allowed to return, we can only expect the same to continue. Plus, we can't overlook the other matters that MSU must address:

- The decades long practice of MSU students tossing and abandoning bicycles and other items into the river.
- The thousands of pounds of campus-sourced litter and trash that goes uncaptured and makes their way downriver for others to manage.

We accept that MSU is a large, hierarchal, bureaucratic organization, that can prove difficult to work and often slow to respond. It has proven such in this case. But, everything needed to begin an immediate response has been presented. I encourage MSU to accept components of its Love Our Waterways awareness, education, and deterrence program. Others have, even Spin.

Spin has accepted our recommendations, those resulting from our Greater Lansing Regional planning meeting:

- Remove their Bogue Street and Auditorium Road staging station.
- Feature the Love Our Waterways logo (social cue) with environmental message.
- Feature the Love Our Waterways logo (social cue) on the frame of each scooter placed in the greater Lansing region area.

While Spin has expressed their commitment, we worry that this may be just another talking point that they will tout for PR value, but again fall short on delivering.

MSU's engagement and leadership are essential for these matters to be addressed and resolved. We thank you for your interest and support.

Sincerely,

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Protecting and Improving our Treasured Waterways.
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