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| VIU acronym_and text | | **Advanced Diploma in GIS Applications**  **Practicum Opportunity Summary** | | |
| Project | Title: | Tire Wear Toxins | | |
| Organisation: | Applied Environmental Research Laboratories | | |
| Location: | VIU | | |
| Sponsor | Name: |  | Title: | Professor and Co-Director |
| Email: |  | Phone: |  |
| Project Overview | Compounds identified in roadway runoff have recently been observed to be acutely toxic to specific salmonids. Understanding when and where the largest inputs are to local rivers and streams is the first step to prioritizing targeted solutions and remediation strategies. This project involves working with a team of researchers in VIU’s Applied Environmental Research Laboratories to map concentrations of tire wear toxins to identify potential sources and fates. Advanced lab-based measurements are conducted before, during and after specific rain events on surface water samples collected between Victoria and Campbell River. | | | |
| Task Summary  (Types of work involved) | Work will include   * Create regional scale vulnerability maps incorporating traffic density, traffic control infrastructure, road slope, proximity to fish bearing waterways, stream flow, land-use, and storm water infrastructure and outflows. * Import existing chemical concentration data and identify hot spots. * Interpolation of concentration surfaces based on discrete observations * Generate user-friendly interactive maps | | | |
| Additional Information  (Appealing Aspects) | * Practicum students will work with a research team of faculty, graduate, and undergraduate students in the Applied Environmental Research Labs. This project includes multiple project partners including local/regional governments, citizen scientists, and First Nations. * Students will have opportunities to work with project partners including BC Conservation Foundation and the City of Nanaimo GIS Department. * Participation in field work and data collection is available upon request. | | | |
| Funding | None  Minor (< $3,000)  Major (>$3,000) | | | |
| Workplace | Off-site  Full-Time On-Site  Other/Mixture  Description (if Other): Hybrid work including several days/week on campus using shared desk/office space. | | | |
| Student Selection | Faculty Selection (Student with highest grades selected from among those interested)  Shared Selection (Faculty and Sponsor make selection based on discussion of interested students)  Sponsor Competition (Sponsor interviews, in-person or via telephone, and selects from interested students) | | | |

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