

# Urban Environmental Excursions:

Field trips to connect urban geology students with the world around them

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## Instructor's Notes

### Suggestions

1. Successful field trips must be *relevant* and *practical* to attract active student participation. In most urban areas, there are numerous sites that can be directly linked with environmental and earth science education. These include hazardous waste sites, solid and liquid waste disposal sites, brownfield redevelopment sites, industrial complexes, and sites with ongoing environmental restoration efforts. Such sites are *relevant* to students because they are local and, in many cases, can directly influence their quality of life.
2. In order to design a *practical* field trip, outings can be limited to one day and scheduled either on a Friday or a Saturday to take advantage of the lighter class loads that most students have on these days. In one day, it is possible to visit three or four sites.
3. Nevertheless, developing a number of alternative field trip sites is necessary to provide a) flexibility in scheduling site visits as conditions change from semester to semester, b) the facility to organize field trip itineraries around different central themes (e.g., air quality, water quality, economic development, environmental justice, etc.), and c) the ability to balance sites of environmental concern with those where significant progress is being made in environmental restoration or stewardship. Start your planning early – it can sometimes take several months lead time to arrange for a large group tour of industrial or municipal sites.
4. Realistically, even a field trip visiting the most relevant sites cannot be expected to be well attended without adequate promotion. Publicity is therefore important to stimulate student interest, particularly if participation is voluntary. Consider using a combination of email, fliers, and webpage linked announcements. Students today get most of their information from the web, so online promotional materials are important.
5. Develop a guidebook for your trip. A one page format that includes a picture, some background information, and some open-ended questions to stimulate discussion can be used for each site. Include a map in your guidebook to help students orient themselves w.r.t. your campus and the sites they will visit.
6. Potential ties to your curriculum are virtually inexhaustible and will be limited only by the creativity of field trip leaders and the imagination of field trip participants. At WSU, these include, but are not limited to:
  - greenhouse gasses, global warming, and climate change
  - surface water, ground water, water quality, and water supply
  - sources, transport, and fate of environmental contaminants
  - urban development, watershed management, and flood control
  - energy generation, alternative energy sources, and environmental tradeoffs
  - natural resource development
  - economic development, manufacturing, and product life cycles
  - disposal of solid and liquid municipal wastes
  - environmental justice and the role of science in political decision making

## Logistics

1. At WSU, we arrange transportation using a commercial bus service with a professional driver. The cost is covered by a course materials fee which is included in registration to cover lab costs for all students. Although field trip participation is optional, there is no additional charge for students who choose to attend. In this way, economic barriers to student participation are minimized.
2. We use our Departmental Field Trip Policy to communicate expectations, maintain safety, and manage participant behavior during each field trip. Implementation of a field trip policy is strongly recommended. Additional information about developing a policy is available at the Cutting Edge Teaching Hydrogeology in the 21<sup>st</sup> Century website:

[http://serc.carleton.edu/NAGTWorkshops/hydrogeo/field\\_trips.html](http://serc.carleton.edu/NAGTWorkshops/hydrogeo/field_trips.html)