

Urban Streams

On a healthy creek, vegetation along stream banks takes up excess nutrients and traps sediment, improving water quality. The diverse plant life supports a rich food web, creating areas of high biodiversity. Intact riparian habitat also helps reduce flooding, acting as a buffer during surging storm waters and rising sea level.



- A. Choose a question (below) that is most closely aligned with your major.
- B. Write (type) a 250-500 word essay to address the question.
- C. You must **use three scholarly citations**, i.e., from peer-reviewed journals. Articles are written by experts and are reviewed by several other experts in the field before the article is published in the journal in order to ensure the article's quality. No wikis, blogs, or websites. You may include one .gov reference. References must be cited in your essay by number (1) and listed in your bibliography in APA format. Good sources for peer-reviewed articles are the Skyline Library OneSearch, Gale Academic OneFile, and PubMed.
- D. Put everything in your own words. Do not quote other authors.
- E. Cite the source in proper APA format. The citations should be organized in alphabetical order by author just as your reference articles. Number the references and use these numbers to refer to a source in your essay,

Follow with a brief annotation that summarizes the source (approx. 3-5 sentences). Do not quote from the source and do not copy and paste the abstract. All of the annotation should be in your own words.

In 1 or 2 sentences, explain the source's relevance and importance to your issue.

- F. Turn in your paper on Canvas.

1. What is your major? _____

2. Choose *one* of the following questions related to your major:

(a) Arts, languages & communications

Environmental artist Andy Goldsworthy (2) said, "We often forget that we are nature. So when we say that we have lost our connection to nature, we've lost our connection to ourselves." Explain why you agree or disagree with Goldsworthy.

(b) Business, entrepreneurship & management

We often channel and pave over creeks to make space for houses and businesses (3). What is the effect of hiding streams on the value of residential and commercial property?

(c) Society & education

What constitutes a healthy stream and why are healthy streams important in an urban environment (3)?

(d) Science, technology & health

Urban streams have been put in concrete channels, paved over, or have become disconnected from their floodplain due to urbanization. How can restoring streams mitigate temperature increases and urban flooding projected from global warming? (1)

Literature Cited

1. Gelsom, P. F. (2018). *Stream daylighting: the effect of restoring culverted streams on ecosystem functioning in Oslo, Norway* (Master's Thesis). Retrieved from Norwegian University of Life Sciences. (<http://hdl.handle.net/11250/2570230>).
Describes the positive effects of daylighting streams on productivity and decomposition. It does not directly answer your question. Note this is a Master's Thesis, which means it has been reviewed and approved by discipline-expert faculty.
2. Gray, T. and C. Thomson. (2016). Transforming Environmental Awareness of Students Through the Arts and Place-Based Pedagogies. *LEARNing Landscapes* 9 (2): 239-260. The authors describe a middle-school program that combines environmental science with history and the arts. Their data suggest this approach is more likely to promote environmental stewardship compared to traditional physical outdoor education programs. This is an example of bibliographic annotation. I used this article as a source for the Goldsworthy quote.
3. Wolch, J., J. Byrne, and J. Newell. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. *Landscape and Urban Planning* 125: 234 - 244. doi: 10.1016/j.landurbplan.2014.01.017.
Discusses the disproportionate impact of urban green spaces illustrating they are an environmental justice issue. The authors conclude that green spaces are necessary for environmental protection and human health. My examples are abbreviated annotations because I can't write *your* paper.

The **Grading Rubric** is below.

Extra Credit. Visit a local creek.

What creek did you visit? _____

Date: _____ Time: _____

How long did you stay? _____

How far did you walk along the creek? _____

Include a photo of you and your creek.

What do you think this creek looked like 75 years ago?

What evidence of urbanization do you see?

How do these changes affect biodiversity or climate (temperature)?

Some local creeks:

San Francisco

- Lobos Creek
- Mission Creek (Park)
- Dragonfly Creek
- Islais Creek

SSF-San Bruno

- Colma Creek
- San Bruno Creek

Pacifica

- Calera Creek
- San Pedro Creek

Millbrae-Burlingame

- Easton Creek
- Mills Creek

San Mateo

- San Mateo Creek

Belmont

- Belmont Creek

Grading Rubric

	1 point	5 points	8 points	10 points
Information sources	No information sources chosen.	Inappropriate and/or irrelevant sources chosen. Sources do not relate to the research topic and/or are of dubious quality and credibility.	A diversity of higher quality sources is more prominent, although some sources chosen are only broadly or tangentially related to research topic or are otherwise of moderate quality.	A variety of high quality relevant sources and viewpoints are used exclusively. Sources selected indicate the student has thoroughly evaluated all sources according to established criteria, including looking for background information about authors, organizations, publications, and reading reviews of published works. Student is fully able to determine which sources to use and which to discard.
Use of Information	<p>Correct use one of the following strategies:</p> <ul style="list-style-type: none"> • use of citations and references according to the discipline; • choice of paraphrasing, summary, or quoting; • using information in ways that are true to original context; • distinguishing between common knowledge and ideas requiring attribution. <p>And demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</p>	<p>Correct use two of the following strategies:</p> <ul style="list-style-type: none"> • use of citations and references according to the discipline; • choice of paraphrasing, summary, or quoting; • using information in ways that are true to original context; • distinguishing between common knowledge and ideas requiring attribution. <p>And demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</p>	<p>Correct use three of the following strategies:</p> <ul style="list-style-type: none"> • use of citations and references according to the discipline; • choice of paraphrasing, summary, or quoting; • using information in ways that are true to original context; • distinguishing between common knowledge and ideas requiring attribution. <p>And demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</p>	<p>Correct use all of the following strategies:</p> <ul style="list-style-type: none"> • use of citations and references according to the discipline; • choice of paraphrasing, summary, or quoting; • using information in ways that are true to original context; • distinguishing between common knowledge and ideas requiring attribution. <p>And demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.</p>

Grading Rubric

	1 point	5 points	8 points	10 points
Research conclusions	No evidence of academic research	Minimal evidence of academic research	Research provided materials to consider in addressing the question.	In-depth research clearly provided substantial material to carefully weight and consider.
Bibliographic annotations	Annotations provide little or not evidence support why the source was significant and how the evidence related to the question		Annotations provide some evidence supporting why the source was significant ad how the evidence related to the question.	Annotations provide robust evidence supporting why the source was significant and how the evidence clearly related to the question.
Format	Did not follow consistent APA format. Spelling and grammar errors throughout.		A few errors. A few errors in spelling and grammar.	APA format faultless, including punctuation. Spelling and grammar are faultless.