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**ANTHRO 25A: Environmental Injustice**

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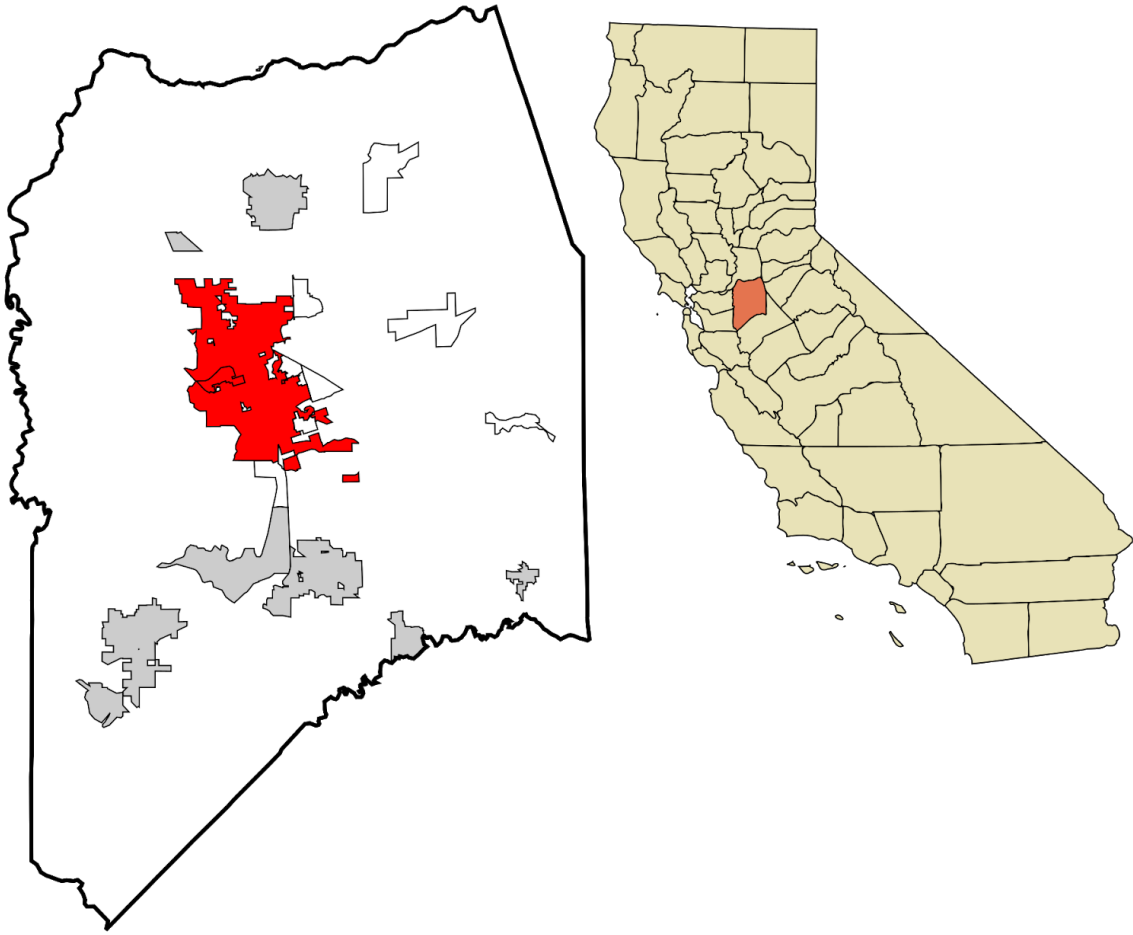
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<sup>1</sup> A total of eight students contributed to this case study, some of whom chose to be anonymous

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Retrieved October 25, 2019, from [https://en.wikipedia.org/wiki/Stockton%2C\\_California#/media/File:San\\_Joaquin\\_County\\_California\\_Incorporated\\_and\\_Unincorporated\\_areas\\_Stockton\\_Highlighted.svg](https://en.wikipedia.org/wiki/Stockton%2C_California#/media/File:San_Joaquin_County_California_Incorporated_and_Unincorporated_areas_Stockton_Highlighted.svg)

# 1. What is the setting of this case? [Cooper Bennett]

Stockton is an administrative city located in the central valley of California, within San Joaquin County, spreading over about 61.67 square miles. Originally founded on the San Joaquin River by Charles M. Weber in 1894 during the California Gold Rush, Stockton was used as an intermediary town for those traveling or transporting to other gold rushes. Currently, the Port of Stockton is used for major foreign and interstate trade. In 2012, the city of Stockton filed for bankruptcy, due to the 2009 financial crisis and the city's effort to unionize Stockton employees. Although, 6 years later and Stockton has possibly become one of the most financially stable cities in the country.

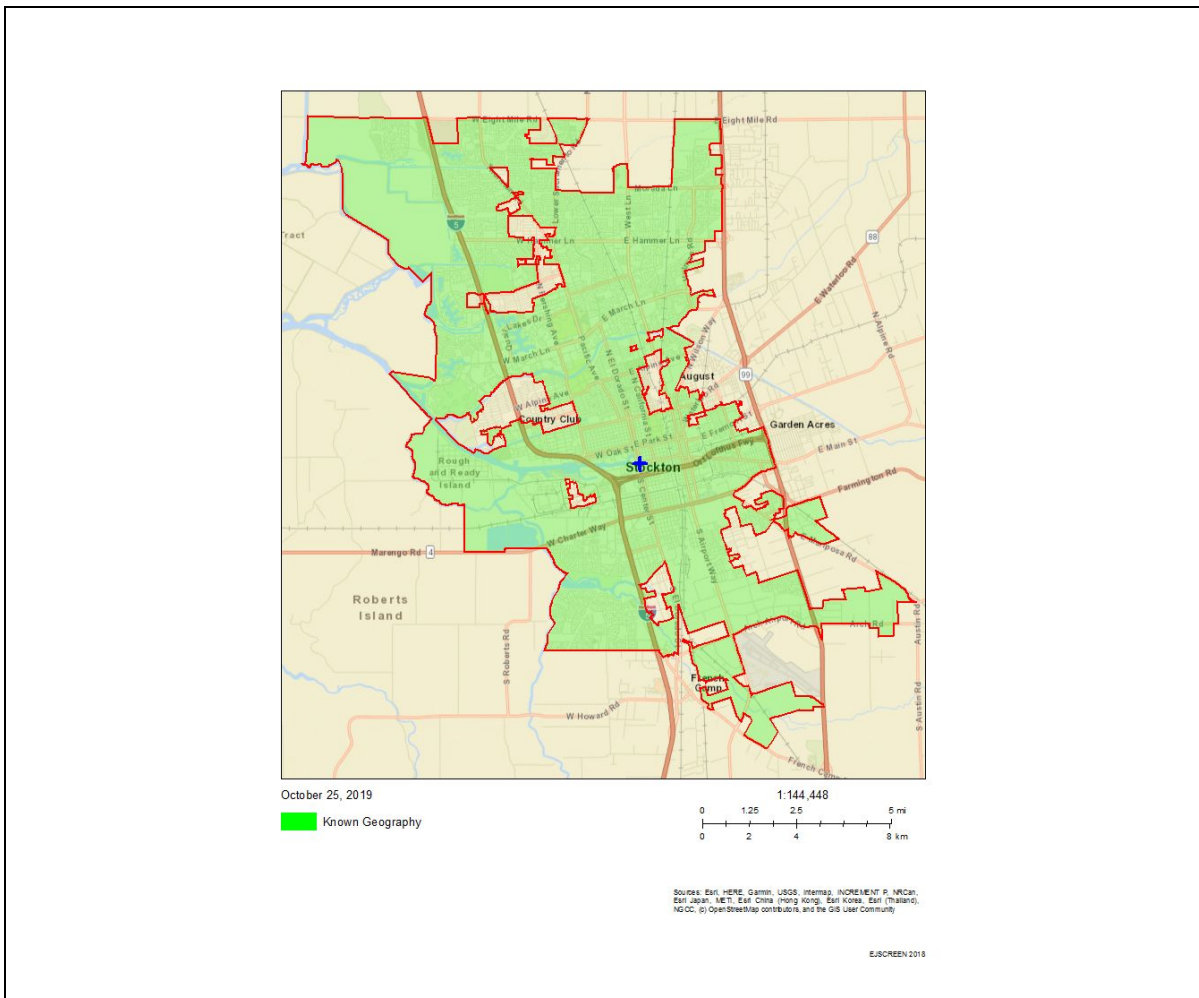


Fig 1: Selected area for the City of Stockton. EPA EJ Screen Report, City of Stockton. Retrieved 25 October 2019. Screenshot taken by Cooper Bennett.

UC Census data tells us the estimated population of Stockton is upwards of 311

thousand people as of 2018, 48% being male and 51% being female, with 27.9% being under the age of 18, and a spread of 4730.1 persons/square mile. Racial demographics see a heavy 43.9% of White alone and 42.2% Hispanic or Latino. As for the income demographics of Stockton, we see nearly 23% of the population is living under the poverty line, with median income of the entire population at around \$48,396 in 2017. (US Census Bureau). According to World Atlas, “Of the population, 132,471 are White (44.20%), 34772 are Black/African Americans (11.60%), 2,037 are native Americans (0.70%), 64,145 are Asians (21.00%), 2,235 are Pacific Islanders (0.70%), 39,432 are other (13.00%)” (WorldAtlas 2015). Juxtaposition to USA demographics, Stockton places at or well above the 75th percentile in almost all categories excluding peoples under the age of 5 or over the age of 64 (Fig. 2).

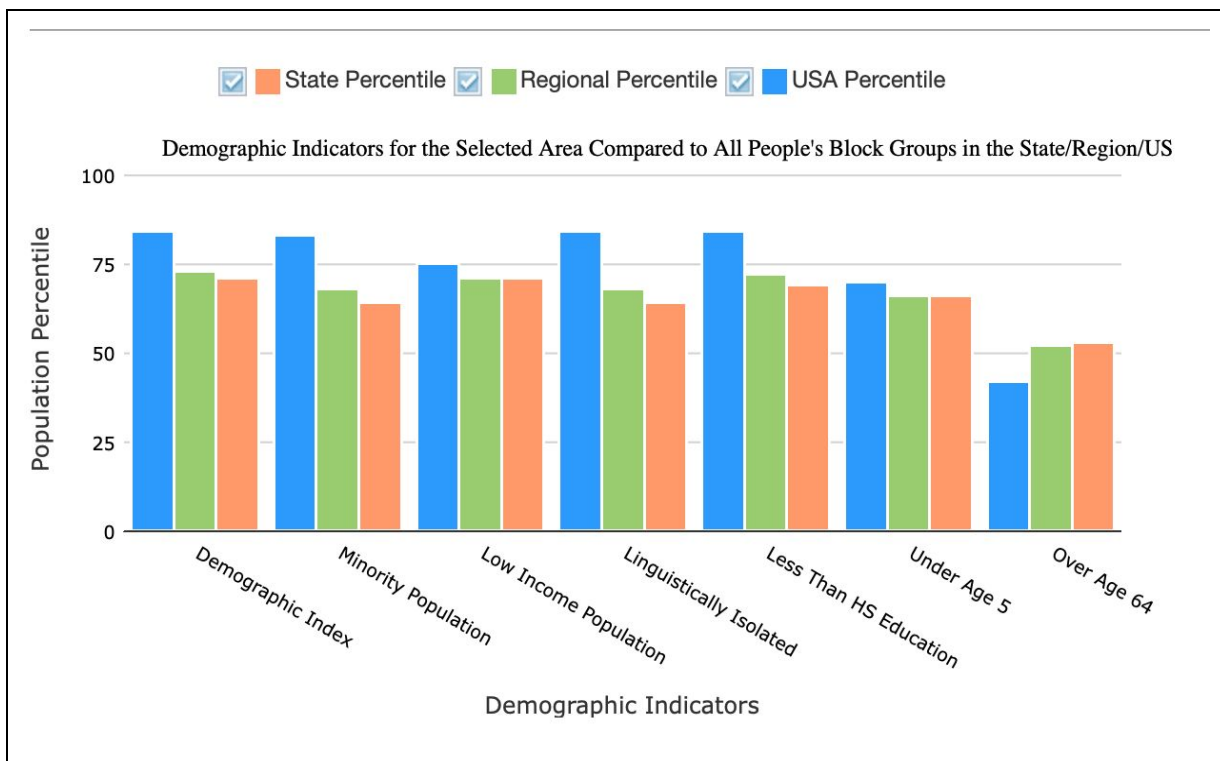


Fig 2: Demographic Indicators for Stockton, California. EJ Screen Report, City Stockton city, CALIFORNIA, EPA Region 9 (Population: 301,394). Retrieved 25 October, 2019. Screenshot taken by Cooper Bennett.

CalEnviroScreen tells us troubling information on the environmental threats to the population. Most of Stockton places well within the 91-100 percentile range, excluding small parts of northern Stockton which are still in a troubling 71-90 percentile range (Fig 3). Areas such as the Port of Stockton, and industrial areas containing oil and chemical producing facilities, are all located within the “red zone”.



One worst-case scenario would be if an earthquake were to hit Stockton as California is earthquake-prone (Baker 2019), the area also lies on the Tracy Stockton fault line which is more likely to be affected by an Earthquake affecting nearby facilities and more importantly Pacific Ethanol Stockton as it lies near the line(Fitzgerald 2014). There are also homes near this facility within a three-mile radius. Meaning if the fire would to spread it would burn people’s homes down and spread rapidly. Also, another scenario would be If this plant was to be affected by this earthquake the plant would just come apart and it is possible for the ethanol to either spill or causes massive fire in the area that will spread far and wide. Many oil and chemical companies are less than a mile from the main treatment plant potentially affecting the main water source, which is the San Joaquin River. This would cause a great deal of damage within the area as the water will become polluted, which would spread affecting wildlife and end up in people's homes as people will consume the water before they find out it has been contaminated. Making people ill and prone to serious illnesses and worst-case scenarios would be death. As ethanol can easily mix with any liquid and consuming ethanol alone can cause someone to go into a coma and it can even be carcinogenic (MSDS 2014).

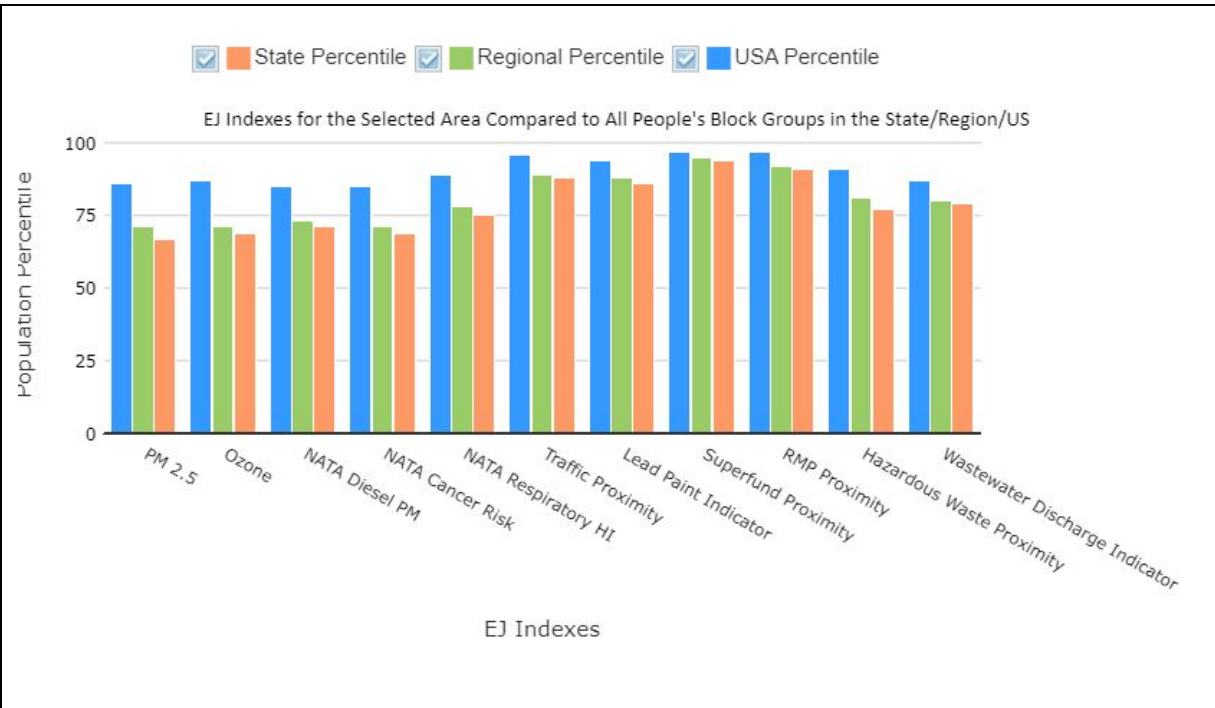


Fig 4: EJ Indexes for Richmond. EPA EJ Screen Report, City of Stockton, 2018. Retrieved October 23, 2019. The screenshot was taken by Christopher Carpio.

As we can see based on this chart that Stockton when being compared within the U.S. it ranks above the 75th percentile in all of EJ indicators. Not only that but when being

compared by regional and state Stockton tends to be above the 75th percentile in 4 categories which are traffic proximity, lead paint indicator, superfund proximity, and RMP proximity. We can see that lead is present in the area in high amounts, which relates back to the worst-case scenario on lead being found within the water due to chemicals used to purify the water. Also, we can see that superfund and RMP proximities are high, which would make sense as to why these facilities that are either abandoned or being used are so close to these neighborhoods. Relating back to how people would be affected as they live so close to where these facilities are located for these worst-case scenarios.

### **3. What factors -- social, cultural, political, technological, ecological -- contribute to environmental health vulnerability and injustice in this setting? [Kota Cody Enokida]**

Stockton has a unique population set that contributes to its relatively high health vulnerability as a city within California. Stockton's social, political, and technological issues in specific, contribute greatly to the environmental health vulnerability and injustice in their commonwealth population. 22.4% of Stockton's population is considered below the poverty line by the government which heavily demonstrates the injustice and disadvantages as opposed to a wealthy society that reaps the benefits of a collectively healthier environment. According to the US Census Bureau's estimate, the median household income in Stockton is \$48,000, while the median for California is \$67,000 (United States Census Bureau, 2017). Social issues are also reflected through the inspection of the racial distribution of Stockton. Most of the census tracts in Stockton are in the 90%+ index on the CalEnviroScreen (California Office of Environmental Health Hazard Assessment, 2018). Through guess and check, we found that tract 607700240, a tract with an index of 95-100%, contained a mere 3% white population, which makes it evident that race is a key social factor that contributes to vulnerability. Another key factor of environmental vulnerability comes from Stockton's economic composition. A major source of air pollution comes from the Port of Stockton, which is a crucial connecting point between the San Joaquin Valley and global shipping lanes. The Port of Stockton even states on their website that, "...maritime industry can be a source of pollutants as well. An estimated one-third of vessel emissions occur while they are at berth" (Port of Stockton, accessed 2019). Because of the city's economic dependency on the port, it makes it extremely difficult to rid itself of the pollution that the port brings to the area. Water pollution also contributes greatly to the environmental health vulnerability and injustice in Stockton. City leaders in Stockton



voted in June 2016, to change the water purification process from Chlorine to Chloramine in hopes to increase water rates by nearly 40% over the next five years (Lyer 2016). The use of Chloramine, however, resulted in an increase of lead concentration in the running water of Stockton due to its corrosive reaction with existing lead water pipes . As a result of not checking the environmental health hazards that changing water purification from Chlorine to Chloramine, the people of Stockton have to pay more for water that has been affected by lead. All of these factors contribute to environmental health instability and vulnerability in Stockton.

#### **4. Who are the stakeholders, what are their characteristics, and what are their perceptions of the problems? [Heather Gee]**

Stockton, California is a city in San Joaquin Valley with a lot of land dedicated to infrastructure and industries including agriculture, oil, and ethanol. Because of this, Stockton has experienced economic growth at the expense of its air quality. This can be seen in *Figure 6*, capturing the pollution that depletes the air quality of the San Joaquin Valley. Some industries, specifically Pacific Ethanol, have biofuel facilities in Stockton that have the potential to create an ethanol gas leak or an oil leak as the facility processes both (Anderson 2019). Consumers of Pacific Ethanol products benefit in that they receive gas for their cars or oil products; and have little to no negative effects assuming they purchase them outside Stockton and away from potential harm. Corporate employees who may oversee the industry from Pacific Ethanol's headquarters in Sacramento, California are benefiting economically without experiencing any of the negative health effects. However, they would face the biggest financial and publicity strains if a catastrophe happens because they represent the company. On- site employees who work in the Stockton biofuel facility benefit in that this job funds their livelihood, but they arguably have the greatest exposure to oil and fumes, as well as the biggest risk of being harmed if an oil leak were to happen. Residents of Stockton are inherently affected by the presence of Pacific Ethanol because they live within close proximity to the infrastructure. The pollution that the biofuel facility has only added to has led to breathing issues for many residents, specifically children. The San Joaquin Valley has some of the worst air quality in the United States, with rapidly increasing rates of asthma and asthma- related hospitalizations for children (Arcuni 2019). This is particularly difficult as oftentimes children do not decide where they live, so they are either born with or develop asthma due to factors uncontrollable to them. Additionally, because they do not control where they live, should a fast disaster happen they may not have anywhere to go or anyone to turn to. As for adult residents, even if they are aware of the potential health issues living in Stockton, it can be financially

straining and emotionally difficult to relocate to a less- polluted area following the events of a gas leak.

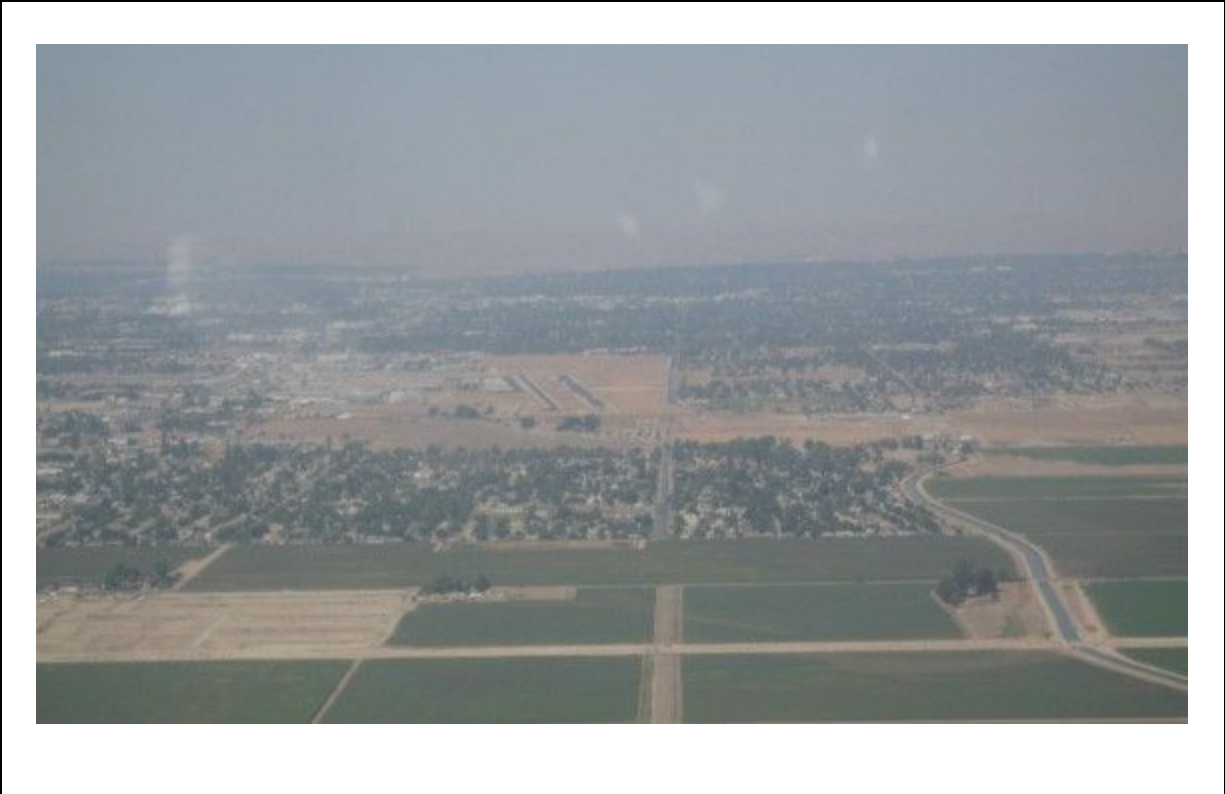


Fig 6: Pollution over the San Joaquin Valley in California; the air quality here continues to be one of the worst in the United States. Image taken from an article by Lynn Yarris in 2014. Yarris, Lynn. 2014. "Air Quality in the San Joaquin Valley Improving: Study Shows Controls to Reduce Nitrogen Oxide Emissions Are Working." News Center. August 20, 2014. <https://newscenter.lbl.gov/2014/08/20/air-quality-in-san-joaquin-valley/>.

**5. What have different stakeholder groups done (or not done) in response to the problems in this case? [Fernando Kevin Gonzalez]**

When looking up fast action disaster protocols for the city of Stockton, it becomes clear that there is no true answer. However, the City has taken some action to that could assist in the prevention of fast disasters. One action is that the Department of Public Works for the San Joaquin Valley has a page about areas near the San Joaquin River that have a CRS classification of 6 which means that they are at high risk of flooding ("Flood

Protection Information | Public Works | San Joaquin County.”). Having this information available for the public to see can help factories plan their safety regulations around serious flooding considering that there are many factories along the rivers and for people to have resources on who to contact in case of emergencies. Still, this page could go more in-depth in what to do if harmful chemicals are released into the water during a flood. As seen in fig 7, if water the levee system fails, then the community will suffer heavy damages (UC Davis). Factories near the river bank could suffer major damage from flooding which could lead to a fast disaster scenario. Having a plan for fast disasters caused by floods could save many lives. Another action is the City of Stockton does have a webpage on what to do if there is a hazardous materials incident.

This can aid in giving people advice on what to do and what will the city do in the case of hazardous materials spreading. Although the city has this page, it lacks specificity. The general advice given can be an aid in most situations but in a worse case scenario it may not be enough. They also do not have an in-depth plan on what to do in a fast case disaster. The mayor of Stockton has been running an experiment in his town by giving a select group of people \$500 a month (Ross). He wants to do this for people who earn less than \$50,000 a year (Ross). If this can help people in stockton, then maybe they will be willing to invest more in fast disaster safety. Having a community of people who are aware is the difference that could protect people from serious harm. The biggest flaw is that the City of Stockton really does not have any fast disaster actions. There are plenty of industrial plants in Stockton that have toxic chemicals that could create hazardous disasters. The City has already taken some action that could possibly reduce fast disaster situations but focusing more efforts towards fast disasters specifically, could save the lives of thousands of people.



*Fig 7: UC Davis provides this photo of a community behind a levee that helps regulate water levels in Stockton (UC Davis).*

## **6. How have big media outlets and environmental organizations covered environmental problems related to worse case scenarios in this setting? [Yi Man]**

For just Stockton, there is limited information about its environmental issue. As we know that Stockton is a city located in the north of the San Joaquin Valley area. Usually, the news and reports are generally talking about the environmental issue in San Joaquin Valley as a whole territory (EPA 2019). But we can logically assume that the scenarios that in Stockton is as bad as the way those reports say. Maybe the place is just too local or the media and news don't want to expose those horrifying facts that might cause panic and opposition. So if people really want to know about the situation in Stockton, besides visiting physically I guess the only way is just to search for the whole area and get a general sense of what might be the situation in this place now.

From the resource online we can see that there are organizations that want to help the situation. A total of \$1 million EPA funds were provided to the San Joaquin Valley Air Pollution Control District for their Technology Advancement Program. Research

funded by a \$1.09 million EPA grant is also underway at the Berkeley/Stanford Children's Environment Health Center. They also awarded \$8 million to the San Joaquin Valley Aerosol Health Effects Center at UC Davis. Besides funding they also established more regulations to enforce facilities on their emission. For example, the EPA is making the companies who doesn't meet the emission standard pay a penalty fee.

Besides, there are also government run departments that specifically deal with the emergency at the chemical plants.

They have specialties and special equipment for dealing with the hazard materials.



Fig 8: Haz Mat 10

### **7. What local actions would reduce environmental vulnerability and injustice related to fast disaster in this setting? Lucas Moore**

The threat of a chemical-related fast disaster in Stockton is not strongly recognized by citizens, if recognized at all. Education, therefore, is the primary local action that serves as the base for all other local actions. Although this research group could not find any Stockton organizations that specifically focused on the environmental injustice of chemical disasters in their community, there are some groups that educate on environmental issues as a whole in the Stockton area. For example, the Environmental Justice Project (EJP) of the Catholic Charities, Diocese of Stockton brings environmental emphasis to the Healthy Neighborhoods Collective, a city government run project that

meets once a month at the Catholic Diocese (Environmental Justice Project, n.d.). However, the EJP focuses on environmental justice issues such as air pollution and protecting farmland and “green jobs”; there is no mention of chemical (nor any type of) fast disasters as an issue (Environmental Justice Project, n.d.). To improve education, the EJP could educate through discussion, advocacy, and public awareness initiatives of the potential of chemical disasters through the Healthy Neighborhoods Collective, or even better, it could create a coalition focused specifically on chemical fast disaster in Stockton.

Furthermore, once educated, citizens of Stockton should demand information on potential fast disasters and the precautions taken against them from the chemical companies themselves. As an example, the documentary “Chemical Valley” captures several public forums in America run by Union Carbide in the wake of the Bhopal accident, as shown in Figure 7 (Pickering and Lewis 1991). Although these forums take place following several disasters and incidents, and that some of the forums were confrontational, these forums directly connected the executives of a chemical company with the surrounding communities. Through forums, the public can express the environmental injustice that they are victims of, question the safety measures (or lack thereof) in place, and push for a safer community. Further research is needed to find incentives for the chemical industries to participate not only after a chemical disaster.

Finally, the City of Stockton should adopt policy goals related to chemical fast disaster in its plan for the future. The Stockton General Plan is a set of goals produced by the city government on nearly every aspect of Stockton’s society (City of Stockton 2018). However, the General Plan speaks nothing to chemical disasters nor does it mention any type of environmental-justice related fast disaster. There are almost endless ways the city could address these, but we recommend any action related to our first two actions. First, the city can educate itself on the chemical plants in Stockton and their potential dangers to the surrounding community, perhaps through research on which company does exactly what and what dangers their actions present of the surrounding communities. Second, the city could hold chemical companies accountable through a branch of the city government dedicated to oversight, and if this is too heavy of a task, aim to work with and support federal and state oversight measures and enforcement. This could mitigate the risk of fast disaster in Stockton and bring safety and justice to its citizens.



Fig 9: A public forum in West Virginia between executives of Union Carbide, left, and concerned citizens of the Kanawha Valley, right. (Pickering and Lewis, 1991).

**8. What extra-local actions (at state, national or international levels) would reduce environmental vulnerability and injustice related to fast disaster in this setting and similar settings? [Elizabeth Robyn Ogan]**

In Stockton, CA, it seems a fast disaster has yet to occur due to the lack of media coverage and data on such incidents. In a case such as this, the most important action to take in order to reduce environmental vulnerability and injustice related to fast disasters requires predicting what could go wrong before it actually happens and creating plans of action to take in the event that an incident does happen. In Stockton, the probability of a fast disaster occurring due to a chemical explosion caused by an earthquake is fairly high. This is due to the fact that Stockton lies directly above the Tracy-Stockton fault line (“Seismic and Geologic Hazards” 1992). The fault line is currently deemed inactive, but earthquake activity recorded in 1881 and 1940 suggests that the “fault [line is] capable of at least a 5.0 magnitude earthquake located near the central part of San Joaquin County” (“Seismic and Geologic Hazards” 1992). In addition to this, the Tracy-Stockton fault line lies directly under two important chemical industrial plants in Stockton, Value Products Corporation and Naiad Company Incorporated (“Chemical Plants in Stockton” 2019). In the event that an earthquake happens, plants located so near to fault line could have pipelines and storage vessels that may rupture, as well as barrels containing chemicals that may be damaged from falling

structures.

In order to reduce environmental vulnerability to the release of such chemicals, the federal government or environmental organizations (such as the Environmental Protection Agency, shown in Figure 8) should put restrictions and regulations in place that prevent chemical facilities from being built in residential areas, as well as areas of high risk for explosion (AIChE Academy 2016). In addition to this, any and all chemicals housed in said facilities should be checked and if they pose a threat, labelled as hazardous (AIChE Academy 2016) in order to ensure the safest handling of the chemicals. Another precaution that could be put in place includes creating emergency plans and training programs that are effectively communicated to emergency responders in and near cities around Stockton, in order to ensure that in the event of a fast disaster, the situation is being handled in the quickest and safest way possible (AIChE Academy 2016). Lastly, the local government in Stockton should increase funding for said training programs (AIChE Academy 2016), in order to show support for the preparation of fast disaster situations, as well as to acknowledge the severity of fast disaster situations that could take place.



Fig 10: This is an image of the Environmental Protection Agency (EPA) logo. This image is fit for this question because it is one of the sole environmental protection agencies that could prevent fast disaster situations from happening. By placing stricter regulations on chemical companies and the way they handle and label chemicals, and by updating their lists of hazardous chemicals frequently, the EPA can prevent such situations from happening in the first place.



**9. What kinds of data and research would be useful in efforts to characterize and address environmental threats (related to fast disaster, pollution and climate change) in this setting and similar settings? [Lucas Moore]**

The most important data that could be useful would be a complete and up-to-date study on the Stockton or greater San Joaquin Valley chemical industry. The sole study we based our evidence of chemical companies with a significant RMP zone in Stockton was useful in identifying several chemical plants, but the report is severely out of date and included some plants that were closed (Who's In Danger 2014). A new study could more precisely evaluate the presence of the chemical industry and the dangers that they present to Stockton citizens.

On top of this, extensive studies are needed on the causes and complications of severe air pollution in Stockton, especially ozone and PM 2.5 pollution. It has been widely documented that the San Joaquin Valley has some of the worst air quality in the nation, earning itself an "F" in air quality according to the American Lung Association (American Lung Association 2019). However, a thorough study of the implications and proposals of possible solutions would be a transformative stride in environmental justice for the San Joaquin Valley. Unfortunately, we didn't focus on air pollution in Stockton for this study, as this is a slow disaster or combo disaster issue.

## 10. What, in your view, is ethically wrong or unjust in this case? [Christopher Carpio]

It is unjust that major corporations such as Pacific Ethanol Stockton are having large profit margins, but do little to nothing to help preserve the air quality of Stockton or acknowledge the potential harm that their facility could cause via fast disaster. Furthermore, when they endanger the lives of citizens of Stockton, the ones most affected are non-white. For instance, take tract 6077002401 on CalEnviroScreen 3.0, a section of the city located near the industrial area on the river shown in Figure 12. With an index of 95-100% (the highest amount of environmental danger and pollution), this tract is a mere 3% white (CalEnviroScreen 3.0 2018). This type of environmental injustice, of which minorities are the victims of, is called environmental racism.

It is ethically wrong to benefit as a whole from the chemicals and oil that these companies produce yet to load the dangers of operation onto minorities. Furthermore, it is wrong that the government, which is charged with the duty of protection of all of its citizens, allows the money and economic prowess of these manufacturers control the situation and permits them to neglect the safety and well-being of thousands, if not hundreds of thousands of people.



Fig 12: CalEnviroScreen 3.0, tract 6077002401

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Cooper Bennett is a third year undergraduate student at UC Irvine. Born in Santa Rosa, Cooper came to Irvine to pursue an education in Anthropology and Mathematics. He strives to climb and explore the far reaches of the world, from Yosemite to Antarctica. Once graduated he plans to attend graduate school in a yet-to-be-determined discipline, but will be pursuing the betterment of the world.



Christopher Carpio is an undergraduate at the University of California, Irvine. He was born in Los Angeles and is a second year undeclared engineering major, yet he is working towards declaring as a mechanical engineering major by the end of the year. His goal is to be a well rounded engineer who is knowledgeable outside of his field. He plans to help out in research by his third year or an internship and land a job within the Los Angeles area once he graduates. At this moment he has no plans to pursue a graduate degree, although he is interested in getting a minor in business management.



Lucas Steven Moore is an undergraduate at the University of California, Irvine. As a second year physics major, he looks forward to taking advantage of research opportunities at the university. Far from having a singular focus, he is also interested in philosophy, politics, and environmental justice, especially in his home state of California. He does not have any specific post-undergraduate or plans, but he is considering pursuing graduate study in physics. Lucas grew up in Georgia and North Carolina, but San Francisco has been his home since 2011.



Heather Michaela Gee is a third year undergraduate student at the University of California, Irvine. As a Public Health Sciences major and Medical Anthropology minor, she strives to learn about medicine holistically and how internal and external factors affect our health. Born and raised in Sacramento, California, Heather has always been driven to explore and see what the world has to offer outside her hometown, and plans to study public health in The Netherlands this coming spring. After finishing her time at UC Irvine, she hopes to pursue a master's degree in Physician Assistant studies.



Fernando Kevin Gonzalez is a fifth year Aerospace Engineering undergraduate at the University of California, Irvine. He was born and raised in Torrance, California. He has many hobbies which include hiking, listening to music, and going to the beach. While he is in his last year of undergraduate, he wants to learn more about electric propulsion so that he can design his own propulsion system. After graduating, he plans on working on propulsion system design on commercial aircraft to make them better for the environment.



Yi Man is an undergraduate at the University of California, Irvine. He was born in Beijing and was studying in high school in Florida. Now he is a third-year computer engineering major. Although lots of the class he took was about computer architect, he also wants to learn to code on his own, so there will be more job opportunities after he graduates. During the summer breaks, he was doing an internship at Tsing Hua University in Beijing on a mechanical arm project. His job was mainly on creating the models for the 3-D printer and manage the printing machine while programming the board with sensors and motors.



Elizabeth Robyn Ogan is an undergraduate student at the University of California, Irvine. She was born in Torrance, California and raised in Carson, California. As a second year Pharmaceutical Sciences major, she is looking forward to pursuing internship opportunities at the university. So far she has no plans with regards to post graduate studies, but she is considering going to graduate school for Neuropharmacology or Psychopharmacology. In the future, she also hopes to start her own research lab.



Kota Cody Enokida is a second year undergraduate at the University of California, Irvine. He was born in Southern California and has lived around the Irvine area his entire life. Cody currently studies computer science and wants to pursue a career in UI/UX and app design. During the summer, he worked as a Software Engineer Intern at Kudan working on Virtual Reality and Augmented Reality Software.



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# APPENDIX:

Question

1:

<https://docs.google.com/document/d/1iaTbpYyobVms9wsFs8e2WxpLdAbJvKZwYZuGqxhiiLk/edit>

Question 2:

RMP Questions Inbox ☆

**C** me 1:17 PM  
Hi Kaitlyn, I did get in touch with my group members a...

---

**K** Kaitlyn Kathleen Rabach 2:03 PM  
to me ▾

In lieu of the actual email response, please take a screenshot that you submitted the response so we have proof you did submit it.

...

---

**K** Kaitlyn Kathleen Rabach 2:03 PM  
to me ▾

and include that email in your appendix.

...

The screenshot shows the EPA website header with navigation tabs for 'Environmental Topics', 'Laws & Regulations', and 'About EPA'. The main heading is 'Vulnerable Zone Indicator System'. Below the heading, a message states: 'Thank you. Your request for information from VZIS has been submitted. You will receive a response by email within a few days.' There is a link to 'Go back to the form'. At the bottom, a dark navigation bar contains the EPA logo and three columns of links: 'Discover.' (Accessibility, EPA Administrator, Budget & Performance, Contracting, Grants, January 10, 2017 Web Transition), 'Connect.' (Data.gov, Inspector General, Jobs, Newsroom, Open Government, Regulations.gov), and 'Ask.' (Contact EPA, Hotlines, FOIA Requests, Frequent Questions, Follow.).

Question 4:

STAKEHOLDER SKETCH		
<p>In this sketch, list different kinds of social actors -- "stakeholders" in governance parlance -- and the forces that enable and disable them. Sometimes stakeholders vary by class position, place of residence, ethnicity or expertise. In some cases, it is important to splice groups usually seen as one: recognizing the way gender and generation interact, for example. <b>List the stakeholders down the middle. In the left column, list catalysts -- things (money, honorable reputation, etc) that enable that group of people to get what they want. In the right column, list corruptions -- things that undermine their ability to get what they want (lack of money or status, youth, gender, poor organizational skills. In filling it all in, you create a quick map of power dynamics.</b></p>		
catalysts	"stakeholders"	corrosions
Voting for propositions, electing officials, power through	Residents of Stockton	Lack of time, effort to educate themselves and act on issues Often lack of money Often lack of influence over gov't officials
Economy and the high demand of petroleum delivery to stations, etc. in the San Joaquin County	Stockton Petroleum Company	Gov't regulations
Political power, local officials	City Government of Stockton	Lack of community trust, lack of major gov't power/ overseen by state/ ntl gov't
Public support, reputation	Environmental Justice Project	Lack of money / status, lack of government support
The city's economy and source of income	Port of Stockton	Lack of Shipments/ Lack of money
The power of the law, precedence over municipal gov't	State of California (government)	Many other issues to focus on, hurdles of passing legislation
The power of the law, precedence over municipal and s	Federal Government	More focused on nation- wide issues
Economic resource for city; in high demand for drivers	Shell Oil Co	Gov't regulation
Lack of gov't regulations and lobbying, demand for ethy the region	Pacific Ethanol	Gov't regulation
rankings	Stockton schools	Gov't funded, youth,