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# Planting Ahead

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## The Roots of Change

When we, ordinary people, face the ever expanding growth of technology and infrastructure in the cities we live in, you have to wonder how you're meant to keep up with it all. It honestly seems futile at times to try, with the immense importance we in the bay area place on this growth and the way companies are always pushing this development to the forefront of everyone's minds and efforts. How are we meant to protect ourselves from being caught up in this war to claim control over technology? How are we meant to stay healthy in body and mind when everywhere is just one office building or another?

There are a few solutions. You could, of course, just deal with it and stay out of the way, but that would allow overdevelopment to run rampant. You could try going on walks or go biking near your house, but who really has safe areas to just be outside in? Well, most people in the bay area actually do. Thanks to support from donors and public funding, organizations such as the Peninsula Open Space Trust, or POST for short, have been able to collect and distribute land to nature preservation organizations to permanently protect that land from being developed on. Protective agencies such as POST provide great benefits to public health, the climate, and the reduction of overdevelopment. Despite this, the value of nature preservation is easily doubted because most people don't directly experience the benefits it provides, unlike technology which people use and fund every day. Nature preservation is worth the time, space, and money it requires because of the benefits to the public, but we should still recognise the limits of both nature preservation and technological growth to maximise the benefits from both.

A nature preservation organisation is a publicly supported charitable organization that actively works to protect specified natural land. There are groups like POST which buy land off of the open market, get land donated to them, or buy land at a discounted price because of their services, but they don't actually keep the land; they end up selling the land to a public agency to ensure that it remains undeveloped and protected. The groups that buy land from groups like POST specialize in managing land using

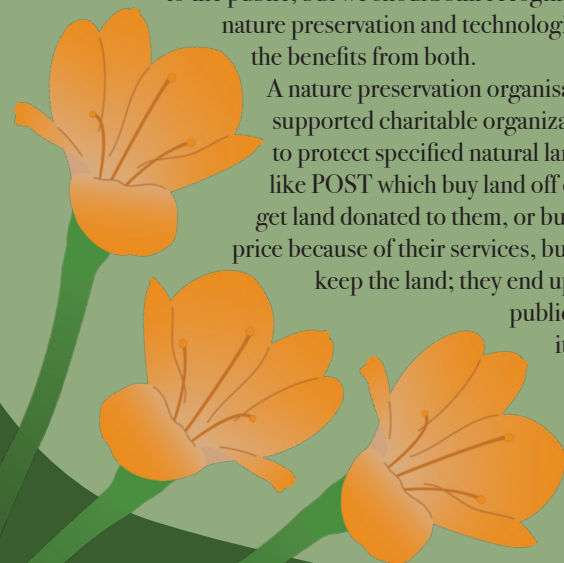
minor development and park rangers. These groups are normally just called land trusts or protective agencies because they own the land and keep it healthy, but if their mission is to not only to protect land but also use it for the benefit of the public, then they are called a public agency. Both of these groups are incredibly important in their respective areas of expertise, but it's important for each group to not overstretch their boundaries because they may be unqualified to deal with specific parts of land ownership, maintenance, or acquisition.

The most important and key role POST takes on is navigating land deals to buy land and then selling it to other public agencies. POST plays a major role in collecting then selling the land to public agencies to make it more accessible and help process transactions. Although major organizations can easily buy land because of the amount of funds they have, smaller groups can't quickly produce the necessary money required to buy nearby land, so POST can help them by either loaning them money and allowing them to pay it back over time, or if the offer for land is too sudden then POST can get the land and sell it to another group later when they have the required funds. Brad O'Brian, Secretary of the Board at POST explained a time POST helped another organization, when "...an opportunity came up to buy property that they could add to their open space district in the Elkhorn Slew. But it was a transaction that had to be completed quickly, and they didn't have the funding, but they knew that they could get it if they had enough time. And so POST, participated in putting up the funding for a limited period of time... with the expectation that we would be paid back. I don't think we actually acquired the land we just made- And I don't think we put up all of the money, but we facilitated the transaction to help an open space district to acquire land."

POST as an organization has been working towards protecting as much Californian land as possible since 1977. When O'Brian explained that when he joined POST while looking for civic-minded legal work, he explained they originally had about ten employees and the operations to buy and protect land was a far smaller scale. When they were just starting out, POST was relying on public donations of money and land to continue their work, but even now they still rely on the public for funds. POST doesn't receive government funding, they rely on donations from the public and the money they make from selling acquired land. This is partially because they don't need it to acquire valuable land, but also because groups like the Midpeninsula Open Space Trust, California State Parks Department, or other public agencies need more funding than POST because they are actively maintaining land and using it for the public. While obtaining land is useful, maintenance costs a lot more over time due to the active money drain.

In order to reduce the cost of work, public agencies usually try to be as efficient as possible to reduce the cost of operations. At least in POST, this means having a specific order of operations to prioritize land that would either connect land they already own or land that has major ecological benefits if protected. They also have a group within POST called the land committee that helps to research beneficial land and present that information to the rest of the board of directors. Methods like this to increase efficiency in research can help to make sure that the entire board in charge of decision making has time to work in their known areas instead of something they aren't specialized in. Essentially, people are separated into groups based on their specialties in order to help POST work more efficiently. This type of organization is not only done by POST, but also by many major companies to create an efficient working environment.

All of these strategies not only work towards the goal of efficient protection, but also towards reducing the impact of major



limitations on POST. By making each employee work as efficiently as possible, individual employees provide more value. Spending money on areas near each other allows local flora and fauna to flourish without needing to develop too much infrastructure for public access that divides the land. Although it may seem backwards, defining a limited working area allows POST to focus on nearby areas and not spread itself too thin. In this exemplification, a general rule that can apply to most of POST's work is that working in too large of an area, be it expertise or physical land, reduces efficacy. Imposing limits can actually decrease costs while still working towards the goal of preserving natural land, but the moment that those limits are forced by outside factors is the instant that preservation will be replaced with pointlessness.

## The Limits of Growth

Nature preservation as an idea is seen by both nonprofits and as incredibly important, and in practice it is. There's a reason why it has been a major goal of both nonprofit organizations and the government for over fifty years. But at the same time more people are supporting one of the largest threats to nature being preserved: technology. Not only do tech companies have an incredibly large base of employees, money, and land ownership, but it's also in the public eye far more often than conservation. Having a greater base of publicity doesn't necessarily cause donations, but it does provide more usage. Think about the last time you used Google or Apple products versus the last time you visited a nature reserve. Both technology companies based groups and nature preservation organizations are constantly fighting to stay relevant and to expand their bases of resources, employees, and land.

The most difficult part of preserving nature in the Bay Area is challenging the expansion of technology in an area where technology is arguably the most important aspect of many people's lives. Groups like POST are constantly being limited by the nature of working on preserving land in an area where developing that land is widely done and perceived as a necessary step to benefiting the public through innovation. O'Brian helps to explain that POST works to conserve the most natural land possible in the time before infrastructure development and conservation completely fill the bay area and there's no more land to work with.

The most prominent limit for POST is clearly the time they have to conserve land. Even though POST has operated for almost fifty years now, they have only preserved 90,000 acres of land out of 100,000,000 acres of land in California. O'Brian explains that POST's working area includes "...San Mateo County, Santa Clara County, part

of San Benito County, and part of Santa Cruz County." So despite POST being one of the older and sufficiently funded land acquisition organizations, it still has a small working area compared to the fifty years spent collecting and protecting land. More specifically, many organizations have a lasting impact, but it's difficult to protect land when other factors at play are seen as far more relevant than protecting land, the largest one being the increase in technology and infrastructure.

Not only do technology companies reduce the capacity POST has to help preserve nature by preventing protection and promoting the development of that land, but they also contribute land that is being protected be less effective at protection. When protected land is separated by things like highways or large buildings, habitat fragmentation, the division of natural habitats through infrastructure, occurs. Bekker and Luell explain that "The consequences for wildlife of constructing transport infrastructure include traffic mortality, habitat loss and degradation, pollution, altered microclimate and hydrological conditions, and disturbance caused by increased human activity in adjacent areas. In addition, roads, railways and waterways impose movement barriers to many animals, barriers that can isolate populations and lead to long-term population declines." Essentially, building infrastructure like roads can cause the disruption of wildlife when that infrastructure cuts through the land the wildlife lives on. This can cause animals to die by being hit by cars, can block animals from moving from one part of the land to another, and often leads to the degradation of wildlife populations in the area where that habitat fragmentation occurs.

**"If we're protecting land on the coast, do we think it's better that it be a big hotel for a lot of people to be able to stay in a big hotel? Typically, no, you think that there's plenty of hotels. And there's a very limited amount of, coastal open space that is available to the public."**

**-Brad O'Brian**

Habitat fragmentation can happen on a far larger scale when instead of land being separated by a busy road, which already has negative effects on native wildlife, is separated by entire building complexes, land being actively developed, or even land that was



bought but hasn't been built on and has been isolated without access to resources that would have allowed it to thrive. Conservation groups like POST help to reduce the negative effects of habitat fragmentation and the isolation of land by creating large expanses of land that connect together to create a unified habitat for native species. As long as groups like POST have enough money and time left to conserve land, they will continue preserving the remaining land in the bay area for the benefit of both the natural land and the people that live nearby.

## The Benefits of Protection

Ultimately, the main purpose of POST is to protect the natural habitat of plants and animals in the Bay Area and extend an invitation to people to enjoy that nature. But why should you actually visit these preserved areas? Going outside benefits your mental and physical health, making you stronger, preventing illness, and allowing you to have a better mood. POST allows people to have easy access to resources like parks and open spaces that give these benefits to people as long as they use those resources.

Going outside usually means going on walks, which are a key part of the benefits of going outside. Walking outdoors has been shown to lower blood pressure, heart rate, and cardiovascular related death while increasing the amount of people who say they feel healthy (Twohig-Bennet and Jones). So when people go outside, their heart works better by being able to decrease the amount of force and amount of heartbeats needed to push blood through the body. So when you go outside, your heart works better while putting in less work. This isn't even for doing major exercises like jogging, push ups, or jumping jacks. Just going outside, walking around, and enjoying nature can increase the body's health.

In addition, spending time every week can provide a variety of mental health benefits, but most people report feeling healthier. Statistics show that "...individuals who spent between 1 and 119 mins in nature in the last week were no more likely to report good health or high well-being than those who reported 0 mins. However, individuals who reported spending  $\geq 120$  mins in nature last week had consistently higher levels of both health and well-being than those who reported no exposure" (White, Et. al). So not only does walking around in nature help with cardiovascular health, but even just existing in nature has been shown to help people feel healthier.

POST is incredibly beneficial to people by protecting easily accessible land that people can use freely to help their mental and physical health. They actively work to protect nature from being

developed in order to defend biodiversity and the easily accessible land that benefits human's health as long as they use the preserves for that purpose. But POST and other nonprofits aren't the only ones that are aiming to protect open spaces.

In 2020, governor Gavin Newsom signed an executive order that set a goal to protect 30% of California's natural land by 2030, also known as the 30x30 plan. If accomplished, this goal could greatly help the biodiversity of California, protect the climate from overdevelopment, and even allow more people to know about the natural areas that they can access. Noelle Chambers, Vice President of Conservation at POST explains that about 24% of California's land has already been protected in a near permanent manner, but also that "...scientists have determined that the goal of 30% serves only as a starting point, and that for our future climate and environmental health, it's necessary to protect at least 50%." So even though we've been on the right track, having more land to prevent pollution and provide access to people living in California is always better.

Even if those living in the Bay Area or California may not realise it, there is far more public protected land to appreciate and utilize than you may think. POST has been and will continue to work tirelessly to increase the amount of protected land in the bay area, and hopefully with a governmental decree that this is in fact important, we will be able to continue growing and protecting our home.

When it comes down to it, the purpose of both the government's involvement in and nonprofit organizations is to protect biodiversity and allow ordinary people to access the benefits this land can provide. As long as we care about the climate and our health, then protecting biodiversity will always provide a suitable option to prevent them from deteriorating. POST may be only one of many organizations that help to protect and unify the Bay Area's ecosystems, and there may be other older groups that have acquired more land, but if they are giving just one person the resources they need to be healthy, then there is a reason for them to continue collecting and protecting land.

Even through the expansion of technology, people have found solace in nature. We live in concrete jungles, but it could never compare to the real thing. In the future, when everything has some piece of technology in it, there is value in having the capability to just leave and see giant redwood trees with some of the largest branches, hear the sound of the lapping ocean waves breaking against the rocky shore, and smell the scent of newly bloomed flowers. Being able to see and feel nature when everything is already a blessing, so having that ability in the future when there will be less and less nature will be even more valuable.





# About the Author



Griffin Polika-Engle is a Junior at Mountain View High School who also takes classes at Freestyle Academy. His favourite colour is blue, he likes to draw and play board games for fun, and he has four cats, a dog, and a snake. Regarding extracurriculars, Griffin has performed in plays and musicals and has competed in art contests. This documentary book has consumed four months, and he doesn't even like the colour green. Photography has recently caught his interest, so learning how to do it at Freestyle has been pretty fun. Griffin hopes to learn even more about design and digital art at Freestyle in the future.

