Shrink the Links: Analyzing the Potential for Repurposing Golf Courses in Los Angeles

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All errors are of course my own.

Abstract

Los Angeles growth patterns and land use policies of the past have created a sprawling metropolis with very little space left to continue growing out from the city's urban core. This sprawl has led to a county-wide lack of developable land in areas that continue to grow in population and struggle with deficiencies in both housing and park land. Looking to creative solutions to that lack of developable land, I found the 91 golf courses within 20 miles of Los Angeles to present themselves for analysis. The vast amount of acreage that they cover cumulatively, with many of them existing very close to the urban core, provides space that could be developed to meet the needs of a constantly growing and changing Los Angeles. This research aims to find if golf courses in Los Angeles could be repurposed to be developed in a way that maximizes social benefit to the people of Los Angeles. This research utilizes expert interviews and mapped data to gather findings and create policy recommendations. Finding of this research showed that the repurposing and redevelopment of select golf courses in Los Angeles is a valid potential solution for the lack of developable land in Los Angeles. Findings also showed that the potential redevelopment should focus on meeting the dire need for affordable housing in Los Angeles while creating more accessible and versatile public park land. The findings support recommendations to create a Los Angeles taskforce of experts that will analyze golf courses in the area to select which courses are best suited for development, as well as legislation that eases the land use transition from golf course to a more socially beneficial development.

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INTRODUCTION

"Golf is dying, many experts say," (Gray, 2018). Pellucid Corp., a golf industry group, reported that from 2002 to 2016 the number of regular golfers fell from 30 to 20.9 million. Golf ratings are down, equipment sales are lagging, and the number of rounds played annually has fallen (Gray, 2018). The general decline in golf's popularity means that many golf courses are struggling financially. This trend in the sport has seen over 800 golf courses around the United States close in the past decade (Clark, 2016). In response, some cities are making the decision to repurpose these golf courses, not only because player numbers are down, but also because golf courses use inordinate amounts of water and land resources, they are met with social and environmental criticism, and all without providing much community benefit to match that resource use.

In Los Angeles, there are nineteen golf courses within the city limits and another sixty-five within twenty miles of the city. To help solve issues of land scarcity for socially beneficial projects and land-misuse more generally, I examine and analyze how Los Angeles could repurpose golf courses to create more land for beneficial development.

In this project I aim to provide potential solutions to land scarcity in the city of Los Angeles by repurposing land within the urban core for max-benefit land use. The 90 golf courses in Los Angeles County, shown in Figure 1 below, given their size and locations, present an opportunity for examination and analysis to address the scarcity of developable land.

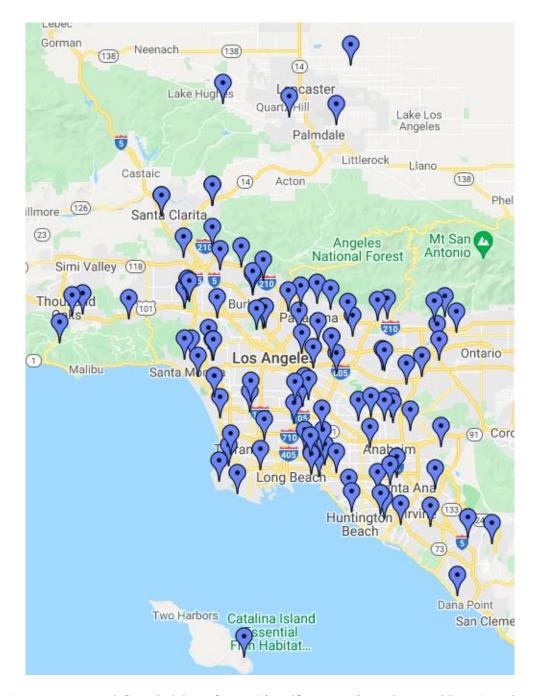


Fig. 1: A user generated Google Map of over 90 golf courses in and around Los Angeles

Through interviews with experts in Los Angeles politics, in housing and land-use research, in community organizing and housing justice, and in parks and recreation, supplemented by mapping of Los Angeles golf course, housing, parks, and transit data, my

research takes a primarily qualitative analysis of repurposing golf courses in Los Angles as a solution for the lack of developable land for socially beneficial projects.

BACKGROUND

Need for Repurposing Land in Cities

Many cities are reexamining ways to better use space to confront a variety of issues including the need for housing and public space, as well as ways to take action on climate change, and other needs. This project is an examination of potential repurposing of land in the hopes of addressing some of these large scale land use issues confronting our cities.

Need for Repurposing Land in Los Angeles

Los Angeles, like many large metropolitan areas, is confronting the growing need for improved land use. According to The Southern California Studies Center's 2001 report, there is very little land left to grow outward in Los Angeles due to the growing and distressed regional core that has reached the natural mountain and sea land barriers surrounding the city. Los Angeles is one of the United States' most densely populated cities, as well as being one of the most spread-out cities in the nation (Laidley, 2016). This lack of developable land is concerning considering Los Angeles is both in the middle of a housing crisis, is a historically "park poor" city, and has continuous desire to grow in new creative and sustainable ways. For this project I introduce the term "max-benefit land-uses" to capture the uses that fill a need in the city or community, build on and enhance local resources, are long-term and sustainable, and limit or even avoid negative impacts.

Zoning Issues in Cities

Zoning is a tool that cities and urban planners use to distinguish what types of building and activity is allowed in certain areas. Los Angeles has a very long list of all zoning codes but the three main zoning types. C, which is commercial, R, which is residential, and M, which is manufacturing (Gendler, 2020). Zoning codes restrict the type and amount of buildings that can built in a given area. Zoning began in most American cities in the early 1900s and gave homeowners a feeling of security knowing somewhat the fate of the areas surrounding their homes. As some see it, though, zoning has become or has always been a method of exclusion. Loopholes have been offered to those with money and power to build as they please while harsh zoning laws restricted growth for more marginalized groups. "Indeed, as many see it, the original purpose of zoning in this country was to promote exclusion," (Maantay, 2001). Zoning laws across the country have exacerbated injustice, promoted segregation, and led to a variety of environmental harm. Maantay's paper "Zoning, Equity and Public Health" uses New York City as a case study to show the relationship between zoning laws and the wellbeing of the communities that they exist in. Maantay highlights the inequity of many zoning laws saying that "by requiring minimum lot sizes and house sizes, specifying allowable housing types and construction materials, and even specifying minimum dollar values, such ordinances keep out lower-income people and maintain community homogeneity," (Maantay, 2001). Additionally, no two zoning districts within a city are completely separated from one another meaning a decrease in industrial zoning in one part of a city often results in an increase in industrial zoning in a different part of the same city.

Los Angeles is recognized for its "frustratingly archaic zoning codes" (Curbed Staff, 2015), which are set by the Los Angeles City Planning Department, that would make it difficult

to implement many potential beneficial development projects in LA. In November of 2020, though, the Los Angeles Board of Supervisors voted to allow a developer to turn a golf course in Carson into a large recreation venue with substantial community engagement (Evains, 2020). Additionally, Cristina Garcia, who represents California's 58th district in Los Angeles County, proposed a bill in 2021 that would begin the process of transforming LA golf courses into parks and affordable housing. AB 672 would see golf courses rezoned to be exempt from both the Public Parks Preservation Act as well as the California Environmental Quality Act, which they are currently a part of because they are zoned as "open space" like parks are. This bill would allow development to begin on golf courses, which is proposed as 25% of acreage to affordable housing and 15% to open space (Garcia, 2021). These movements toward creating pathways to make repurposing of golf courses possible opens up a potential area for beneficial development of over a thousand acres in the City of Los Angeles alone, and even more in Los Angeles County.

Past Examples of Repurposing Golf Courses

There are several examples of golf courses being repurposed across the country. In Prairie Village, Kansas, a real estate company bought Meadowview Golf Course and developed the 136 acres into an 84-acre park along with 53 single family homes, 70 villa homes, 282 luxury apartments, a 300-unit senior living facility, and a 50-room inn. Clear Lake City, Texas, outside Houston, turned a former course into five detention ponds that help reduce flooding and are suspected to save about 200 homes (Kotecki, 2018). This redevelopment was in response to the crisis that was Hurricane Harvey in 2017 and will cost about \$28 million dollars to build. While many golf courses are being repurposed as luxury homes, or industrial campuses, this reclamation serves as a reminder that the space that courses take up can be a vital tool in helping

to solve the crises of the cities they reside in. In Hong Kong, the government announced that it will take "part of a 129-year-old golf club will be appropriated for new housing," much of it being affordable housing (Hui, 2019). In Akron Ohio, Metro Parks bought a 50-year-old golf course for \$4 million in 2016 and is repurposing the area into a public park (Warsmith, 2018).

Los Angeles, like many cities, is facing several issues associated with growth and is in need of developable land to begin looking towards solutions. The literature review examines what exactly the lack of developable land is, as well as how and why the repurposing and redevelopment of golf courses can be a solution.

LITERATURE REVIEW

The literature review focuses on two prongs of the issues identified here - the lack of developable land and how repurposing and redevelopment of golf courses can be a solution - through an examination of several components of each. A brief overview of the particular historical, social, and geographical situations provides important information on the need for changes within the city limits that can create beneficial development without continuing to grow further and further away from the urban core. Additionally, a review of how zoning laws have created some of the issues, and therefore how revising those laws could allow for beneficial development in areas of the city that are closer to opportunity is explored. The second prong of the literature review examines golf courses as the potential space for beneficial repurposing through a resource-use lens, as well as am economic lens, in order to achieve maximal public benefit.

Los Angeles Sprawl and Urban Growth

Los Angeles is one of the most sprawling cities in the world and continues to grow outward filling nearby valleys and hills with development. This "urban sprawl" is defined in a number of different ways such as the percentage of a metropolitan area's population that resides within the Census Bureau-defined urbanized area (contiguous blocks generally having one thousand or more persons per square mile), or "land resources consumed to accommodate new urbanization," and measured as the ratio of growth in land consumption to growth in population of the metropolitan area. (Fulton et al, 2001). For this project sprawl should be generally understood as the expansion of dispersed development into surrounding areas at a scale public services cannot effectively serve. It is also important to recognize the elements often associated with sprawl such as low density, single use zoning, distance from public transportation, as well as distance from social and economic hubs in order to understand why limiting sprawl remains a goal. Los Angeles is unlike many high-population metro regions because it both covers a large area and remains highly dense.

Despite boasting one of the highest population densities in the United States, Los Angeles also "averages the highest level of vehicular travel per capita, and the worst traffic congestion in the USA," (Schrank & Lomax, 2007). The congestion and high levels of vehicle travel are two topical issues related to urban sprawl. In 1997, Reid Ewing wrote about the varied costs of "Los Angeles-style sprawl." He first cites the costs of living further from urban centers, such as the broad environmental costs associated with increased vehicle travel, as well as costs to the individual such as higher gas costs due to an increase in vehicle miles traveled. Ewing also points to the social and psychological or emotional cost of sprawl which he asserts arise when people live far from community facilities, services, and even employment. Such impacts are felt

most by the young, elderly, and poor (Ewing, 1997). Thinking towards solutions, a research team from University of Southern California and the Brookings Institute are emphasizing the need for Los Angeles to "grow smarter," and to think more critically about where growth is happening because sprawl cannot continue indefinitely (Dear, 2001). Additionally, the report claims that Los Angeles County "[does] not have enough developable land to accommodate expected growth in the next 20 years." Those 20 years have elapsed since the study was conducted, and Los Angeles, with a continually growing population, still has a need for developable land in order to account for growing needs—especially housing (Dillon and Zahniser, 2022).

In Los Angeles, the growing regional core seems to have reached its natural barriers of mountains and sea that surround the city; thus, continued outward expansion is nearly impossible. The combination of sprawl and poor land-use have created a scarcity of land for new developments. Los Angeles can no longer grow outward but instead needs to find areas within the city that are close to resources and opportunities. Redevelopment of existing, built areas is much more disruptive and expensive than repurposing land that is "misallocated" to golf courses (Hein and Condon, 2019). Using potential development of housing or parks as an example, it is clear how building those within the city would decrease vehicle miles traveled, save people money on travel and transportation, reduce emissions, and lessen the distance to opportunity and community. In sum, there is clear evidence for need for land within Los Angeles. Research that advocates for smarter growth and minimizing Los Angeles sprawl supports repurposing of land and the redevelopment of golf courses are a possible solution to the shortage of developable land.

Land Use Change in Los Angeles

Zoning and land use regulations can be large factors in housing prices, as shown in C.J. Gabbe's paper "Changing Residential Land Use Regulations to Address High Housing Prices,"

(Gabbe, 2019). Gabbe, focusing on Los Angeles, points out that there has been a large national push for land use change in order to address rising housing costs. The idea is that changing zoning in a way that allows for both more housing and increases the variety of housing options (single family, multi-family, apartments) will lower the housing prices overall by creating more supply. The report shows that "certain land use regulations—such as large-lot, single-family zoning—limit housing production and increase housing prices. Low-income renters have been hardest hit, particularly in the highest priced coastal metropolitan areas," (Gabbe, 2019). In places where there is land available but zoned in such a way that makes it difficult or impossible to develop, changing the zoning can be the first step in creating beneficial development. Focusing on the creation of new housing as an example of beneficial development that can result from zoning changes, it becomes evident what max-benefit land use could look like and how zoning could play a role. It is a matter of housing equity; Los Angeles, with so many people and such a large population of renters, is in dire need. Zoning change, such as what Cristina Garcia pushed for at a state level, could be a method to change land use and thereby open pathways to have more desirable land for beneficial development - land that is near to the city's core, community centers, jobs, and other opportunities.

Housing Crisis, Park Poor Neighborhoods, and Community Need

When looking for examples of beneficial development, it is important to first look at what is lacking and what is needed. Two possible examples in Los Angeles are housing and parks. Los Angeles County has a shortage of affordable rental housing. 499,430 low-income renter households in Los Angeles County do not have access to an affordable home (California Housing Partnership, 2021). In order to understand the housing crisis, it is important to look at the role that supply plays. A research paper published by the US Department of Housing and

Urban Development points to two metrics to discuss L.A.'s supply shortage, vacancy rates and doubling up rates. The team of researchers shows that Los Angeles has the second lowest vacancy rate of any Metropolitan Statistical Area (MSA) (Zhu, et al, 2021). Additionally, Los Angeles proves to be the second highest MSA for doubling up rates, which, which is defined as "having one or more adults in addition to the head of household and spouse or partner" living in the same house (Edge, n.d.). These two metrics together highlight the amount of housing as a driving force in the housing crisis and illustrate the need for development of additional affordable housing in Los Angeles. They show that housing exists as a community need and they point to a lack of supply for affordable housing in Los Angeles. Affordable housing fits into beneficial development because it fills a community need, it is a long-term solution to housing when focused on accessibility and affordability, and when it is not contributing to sprawl and is built in desirable locations, it enhances local resources and accessibility to opportunities.

Another issue of scarcity is the lack of access to parks for some neighborhoods in Los Angeles. In the same way that zoning and land use affects housing, it also influences where parks are located. In the paper "Parks and Park Funding in Los Angeles: An Equity-Mapping Analysis" from 2005, the research team looks at the historical trends surrounding the relationship between zoning and parks. They explain that "higher-density housing, commercial, and industrial activities" were allowed in neighborhoods that were predominantly "lower-income workers, including people of color." (Wolch, 2005) In this same study, they found that in 2005, census tract areas that were predominantly white had 53 times more park acres per 1000 residents than areas that were predominantly Latino, 18.7 times as many as predominantly Black areas, and 106 times the acres of predominantly Asian-Pacific Islander areas. These inequities are difficult to change due to the lack of viable land from sprawl and zoning issues discussed earlier. By

repurposing and using land within the city to create parks, these issues could be mitigated. By maintaining or adding green space, making it publicly accessible, and meeting the need of park scarcity, creating public parks is a great example of max-use benefit.

Transit Oriented Development

Creating new developments, especially if they exist within the city like these golf courses do, presents an opportunity to link those developments to jobs, schools, retail, and community through transit. A strategy for creating socially beneficial development that is accessible and minimizes environmental harm is transit oriented development (TOD). TOD focuses on locating new developments, especially housing, in close proximity to transit stops. By focusing on the relationship between sprawl, access to opportunity, and decreasing environmental harm, TOD fits in with this idea of max-benefit land-use. In 2016, Los Angeles voters passed Measure JJJ that created the Transit Oriented Communities (TOC) Incentive Program. The program aims to encourage "the construction of affordable housing near bus and train stations," (Los Angeles City Planning). A result of TOD and TOC is that cities build closer to their urban core which mitigates the continuation of sprawl. Anastasia Loukaitou-Sideris a UCLA urban planning researcher explained in her 2010 paper that "developers and their architects now see a good potential for TODs, acknowledging the demand for more affordable homes, schools and offices in the metropolitan core instead of the exurban periphery." (Loukaitou-Sideris, 2010). Another result of TOD is a cut down on both vehicle miles traveled and vehicle emissions. As residents are able to move into TOD, they are able to use public transportation rather than personal vehicles, meaning the reduction of emissions becomes another benefit of TOD (Nahlik & Chester, 2014). The benefits of TOD are well understood, and developers should look to combine all these aspects of building in ways that create an intersection of transportation

benefits, environmental benefits, and increased access to the city for all people. Through the lens of TOD, when looking for or creating desirable land for beneficial development, it is important to consider the location of the space in relation to both the urban core, as well as nearby transit hubs.

This section of gathered research helps to inform the creation of a tool that will advise decisions concerning which Los Angeles golf courses could be most effectively repurposed as max-benefit development. As the TOD style has gained popularity among cities and developers, some areas have still been left out, such as South Central Los Angeles (Hess, 2004). Looking at Figure 1, it can be seen that there are two golf courses in South Central's Bell Gardens. There is Bell Gardens Golf Course and Rio Hondo Golf Club. By thinking about golf courses as an area for repurposing potential, it is also possible to use methods like TOD to make sure areas that need development might be able to receive it.

Public Opposition and Declining Interest of Golf

With these examples of community needs and examples of potential beneficial development, it is clear that land is needed in Los Angeles. Michael Dear claims that "Almost all the natural locations for urban development have been consumed, and most of the remaining areas are constrained by government policy" (Dear, 2001). Potentially, urban golf courses could be part of the answer. There is a long history of social, cultural, and environmental issues associated with golf and golf courses, and now, with the game's popularity in the United States on a decade-long decline, looking to golf courses as viable locations for higher-value land uses is a logical next step. In 2010, University of the Aegean professor Helen Briassoulis explored public opposition to golf course development in Greece. Briassoulis illustrates the feelings of locals about golf courses, where people had concerns about protecting the natural environment,

protecting public land, sustainability (water and energy consumption), and social issues with golf and course development. She ties many of these reactions to similar international sentiments and claims that "The global expansion of golf development has been often accompanied by local opposition that at times has been strong and violent," (Briassoulis, 2010). While the focus of this project is on repurposing existing courses rather than developing new courses, many of these concerns are still present for courses even after they are built.

Golf Course Water and Energy Consumption

In 2009 The Environmental Institute for Golf sent a survey to superintendents at 16,797 golf facilities in the United States looking to gather data on water usage at these courses and accompanying club houses. They only received 15% of survey responses but their findings showed that golf courses "constitute 1,198,381 acres of irrigated turfgrass in the United States, and their total annual water use averaged...is estimated at 2,312,701 acre-feet," or 753,595,802,057 gallons of water per year. (Throssel et al, 2009). For comparison, that is equivalent to just under seven million average American households (US EPA, 2017). In 2015, a follow up survey was conducted with almost all of the same course superintendents. These findings were compared with the original survey results to show change over time. This was during a time when many courses in the United States were beginning to use recycled water for irrigation and taking resource use more seriously. While responding golf courses showed a 21.8% decrease nationally in average water use, the Southwest Region, which includes Los Angeles, showed a 0.18% increase from 2009 (Gelertner, 2015), meaning they are performing worse on their water conservation efforts or that they have been increasing the number of golf courses within that six-year period. A similar survey was conducted to obtain the amount of energy and fuel golf courses in the United States used. The findings showed that the average 18hole American golf course used 448,123 kilowatt hours of electricity, 2,528 gallons of propane, 2,856 gallons of natural gas, 2,273 gallons of heating oil in a year, (Lyman et al, 2012). These three surveys illustrate the immense amount of resources that golf courses use. As a respondent to Helen Briassoulis's study put it "When human beings are facing global environmental crisis, there is no room on earth for a mere game," (Briassoulis, 2010).

These studies did not show specific responses from golf courses so water usage data from specific LA courses was not available here, but some data published by the Los Angeles

Department of Water and Power. These water-use concerns are especially important in such a drought ridden area like Los Angeles. California laws protect individuals and certain businesses from releasing their exact water usage data, so it is difficult to know exactly how much water courses in Los Angeles use. A report from the Los Angeles Department of Water and Power, though, showed how much water they saved by switching to recycled water at certain LA courses. The report showed that switching eight out of the city of LA's nineteen courses to recycled water would save 690 million gallons of water per year, giving an idea of the amount of water that one of the other 90 courses around LA might use individually (LADWP, 2018).

By virtue of their size and location, these urban golf courses today likely exist at significant social opportunity cost. Combined with their declining player numbers, immense resource use, and social dissatisfaction, they become very viable options to be repurposed and replaced with beneficial development that meets the needs of the community at a time when community care and environmental wellbeing is of the utmost importance.

Public Golf Courses Lose Taxpayer Money

In addition to social opportunity cost, a recent study found that golf courses in the United States lose millions of dollars on operating costs. The Reason Foundation found that operations costs at

155 of 222 studied public golf courses around the country lost a total of \$61 million. Within Los Angeles, the cities of Alhambra and Bell Gardens were both subjects of this research. Alhambra lost \$222,398 in 2020 while Bell Gardens lost \$139,678 (Joffe, 2022). Joffe also mentions how the financial information of Los Angeles golf courses are linked to the parks and recreation system, so not only are golf courses here losing money for themselves, but they are also losing money for the entire parks system of Los Angeles. If golf courses that are a net loss for the parks system could be identified and repurposed, the parks system could save money while simultaneously creating pathways for socially beneficial development on former golf courses that had been struggling financially.

Missing Research

Although there is extensive research on what caused the sprawl in Los Angeles and how the city and the region have arrived at a point where continued growth is so difficult, there is not sufficient research on the feasibility of potential redevelopments of land with other current uses. There is very little academic research on the repurposing of golf courses for socially beneficial development and how a city might make that happen. My research, through interviews, mapping, and developing a redevelopment framework, will look to provide a solution that could create non-sprawling developments and look to experts in various fields to understand the feasibility of that redevelopment as well as possible next steps.

METHODOLOGY

For this project my primary methodology was a set of interviews which I supplemented with ArcGIS mapping to help graphically represent and better imagine some of the concepts discussed in the interviews.

To answer the question of how golf courses in Los Angeles could help solve the lack of desirable and developable land, I interviewed people with experience working in Los Angeles politics, in Parks and Recreation, in community organizing and housing advocacy, and in housing and land use research. In January and February of 2022, I interviewed Bill Pryzlucki, the executive director of People Organized for Westside Renewal; University of British Columbia Professor Patrick Condon; executive director of the Congress for the New Urbanism and former city manager of Santa Monica, Rick Cole; and Los Angeles Recreation and Parks general manager Michael Shull. Each of the interviewees offered distinct and useful opinions and brought wide-ranging expertise to the research project and its proposed potential of golf course repurposing. Bill Przylucki has worked in community organizing for several years and has a keen understanding of community needs. Patrick Condon has over 25 years of experience in sustainable urban design as both a city planner as well as researcher and professor. Rick Cole has had a long career in Los Angeles politics and policy and knows the city very well. Michael Shull and his department oversee the many municipal golf courses that exist in Los Angeles and all of these people brought immense insight to this project.

Another important component of the research methodology was the use of GIS mapping data. This data collection and visual representation of it helped to reveal and assess which golf courses are in locations that could potentially have a need for land-dependent public goods that are more socially valuable in those locations than golf.

I examined Los Angeles open-source data on housing need by neighborhood, park location, and found the acreage of golf courses using GIS measuring tools. I also used data on Los Angeles Transit stops to see which courses exist near transit in order to suggest development that fits within existing frameworks as well.

Methodology Limitations

Using interviews as a main research method, especially with a limited amount of time, it is inevitable that you will not be able to speak with everyone. My limitations for this project included both a desire for a higher number of interviews and a wider variety of viewpoints being interviewed. I reached out to 12 individuals and organizations overall and received interest from five, four of which I was able to secure. The viewpoints that I would have liked to include in my project are that of golfers and golfer associations, current Los Angeles city council members, and people living on or near golf courses that are mentioned in this study.

FINDINGS & ANALYSIS

In interviews with experts on sustainable urban design and land use, Los Angeles public policy, Los Angeles community organizing, and Los Angeles parks and recreation, I found that repurposing golf courses is a plausible and practical solution to the lack of developable land in Los Angeles's urban core. My interview subjects suggested that golf is not a vital public good affordable housing would be the best candidate to replace golf courses, the location of golf courses within the city is important to consider due to community need and transit access, and that while there are social and political roadblocks to repurposing golf courses, there are strategies to look towards that make it possible.

Golf Courses Are Not a Vital Public Good

No one interviewed denied that golf courses have some benefits, but everyone talked about ways in which Los Angeles lacked in terms of land scarcity and most thought that golf courses could be a more beneficial public good if repurposed. POWER director Bill Przylucki asserted that golf courses were not the best use of public space. While talking about the high number of unhoused

people in Santa Monica, Przylucki noted that "It's pretty easy to see, as public land, public courses, especially where they're located in this city, it's probably not the best use of those spaces." Former city manager of Santa Monica Rick Cole had similar feelings about how golf courses benefitted the city saying that "It's a very small public good for a narrow clientele." UBC professor Patrick Condon who has written plans for potential golf course redevelopment in Vancouver, B.C, succinctly summarized one of the main arguments for repurposing golf course land saying that "city owned golf courses are huge and used by relatively few people and fewer and fewer all the time." The consensus was that golf courses, while beneficial to some, are in excess in Los Angeles and could maximize social benefit by repurposing.

Housing as the Greatest Need

Many interviewed pointed to affordable housing as the greatest need and the best use of the space that golf currently uses. Of the people interviewed, three pointed to affordable housing as the most important or most prevalent form of socially beneficial development that could replace golf courses if they were redeveloped. Discussing the current housing crisis in Los Angeles, Bill Przylucki said "There is a very urgent and very clear need, if you have been alive at all in LA in the last couple years you know about the housing crisis specifically around Venice." The higher density of unhoused people in Venice can be seen in the map below.

¹Venice has an estimated unhoused population of 1,600 in a neighborhood of around 40,000. Melley, Brian. n.d. "LA's Venice Beach a Flashpoint in City's Homeless Crisis." ABC News. Accessed March 23, 2022. https://abcnews.go.com/US/wireStory/las-venice-beach-flashpoint-citys-homeless-crisis-79140231.

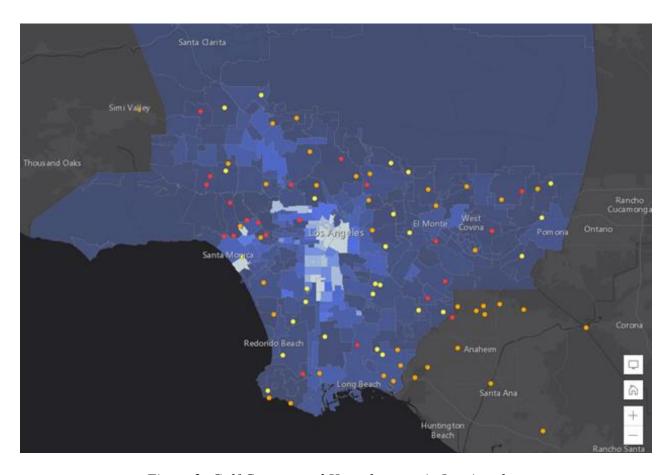


Figure 2: Golf Courses and Houselessness in Los Angeles

Figure 2 shows golf courses and the density of houselessness in the surrounding areas. The lighter colors represent higher density of houselessness and the courses that stand out in this map as being within or close to those high-density areas are Penmar Golf Course in Santa Monica, as well as Maggie Hathaway Golf Course in Westmont. While golf courses located near community need for housing would perhaps be preferred, Bill Przylucki noted that it was not absolutely necessary, saying that Los Angeles's "most marginalized people are already highly mobile." Przylucki talked about how while not entirely necessary, it could be a benefit to develop housing near the most immediate need saying, "Penmar has that course...where there's a huge need for affordable housing development. You could put probably over 1000 units in that space." He mentioned as well that because housing is in such demand in Los Angeles, where new housing is

built is less important than making sure it gets built because people needing housing will likely move within the city to get it.

Patrick Condon pointed to his recommendations "to build one third market housing at full price and use the huge profits to build non-market housing like coops and social housing for low income." Those huge profits would be from developing market-rate housing on the "free," city-owned land of public golf courses.

Parks as a Community Need

In contrast to Pryzlucki, Cole, and Condon, Michael Shull was "not a proponent of developing those golf courses beyond what they are," and felt that keeping them as golf courses would be the most socially beneficial thing to do. The parks and recreation director hailed their benefit as park land and reminded me that golf courses are zoned as open space in Los Angeles, just like parks. Figure 3 shows golf courses as well as open access parks in Los Angeles. The smallest green dots are any open access parks below 100 acres, then moving up in size the dots represent parks with areas greater than 100, 250, 400, and 500 acres. The map illustrates a disparity of park access in the urban core of Los Angeles and while golf courses offer open space to some, transitioning use could offer greater benefits to more people.

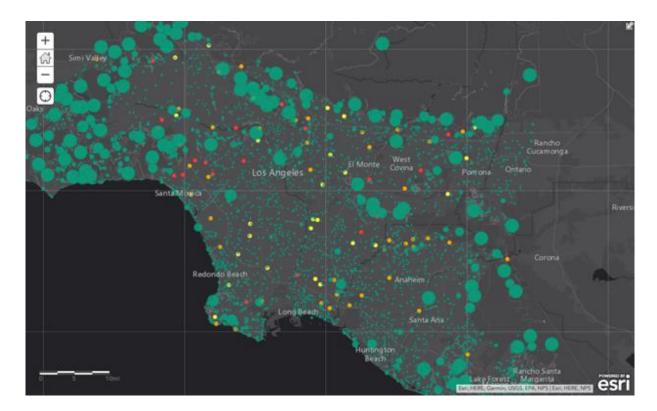


Figure 3: Golf Courses and Open Access Parks

Everyone interviewed for this project talked about the importance of parks in Los

Angeles and felt that there were not enough of them. Redevelopment of golf courses would not
mean eliminating all the greenery from these spaces. Discussing how golf courses benefit Los

Angeles, Recreation and Parks director Michael Shull pointed to their benefit as open space
saying, "in a place like Los Angeles open space is an absolute premium and is in fact deficient."

He explained his belief that golf courses should not be the site of any development, as their
importance as open space is of paramount importance. Patrick Condon illustrated how
repurposing golf courses could increase general access to open space, suggesting that the goal
would be to only use "half the site and turn the other half into a central park space for the new
residents and folks from surrounding areas." This would create needed housing as well as multipurpose park land. Rick Cole, in speaking more generally about park spaces, added that "there's
a hierarchy of parks. It's valuable to have a small usable park within walking distance of every

house. The kind of place where you go sit, toss a ball, lay out a blanket, have some community gatherings." A golf course, while zoned as "open space,", as Michael Shull pointed out, would be low in this "hierarchy of parks." It does not have the same benefit to the community as public open access parks do.

Course Size as a Repurposing Benefit

Having housing and public access parks on areas of more than fifty acres is doable. Patrick Condon, Bill Pryzlucki, and Rick Cole all talked about golf courses' large size as a reason why they are better repurposing targets than other areas of land, especially public land. From those discussions, I looked at the acreage of some of Los Angeles County's 90 courses. In this table, along with the acreage, is the distance to Downtown Los Angeles, as well as a count of the unhoused population in that golf course's Service Planning Area.

Figure 4: Course Acreage, Miles from City Center, and SPA Unhoused Population

Course Name	Aamaaaa	Miles Duiving from City Conton	Unhaviord Dan by CDA (2020)
Chester	Acreage	Miles Driving from City Center	Unhoused Pop. by SPA (2020)
Washington	135	12.8	4560
Hansen Dam	211	19.6	9108
Rio Hondo	145	12.7	4586
Woodley Lakes	295	19.6	9108
Bel Air Country Club	110	16.6	6009
Maggie Hathaway	20	10.1	13012
Whittier Narrows	356	10.9	4555
Wilshire Country Club	104	6.4	17121
Hillcrest	142	13.1	6009
Rancho Park	200	12.2	6009
Penmar	53	15.3	6009
Annandale	127	9.7	4555
Alhambra	150	9.3	4555
Los Amigos	153	14.1	9108
Oakmont	105	12	9108
Brookside	291	10.7	4555
Debell	140	14.1	9108
Alondra	214	16.1	4560

Whittier Narrows is large, and close to the city center, but does not have as much nearby need in the neighborhood. Maggie Hathaway is much smaller but is also close to the city center and has a much higher population of unhoused people nearby. These data and maps show the various ways to think about what makes a golf course a possible site for repurposing and where could be better left continuing as a golf course. These findings support the idea that a lack of developable land in Los Angeles can be remedied by reevaluating the benefits of golf courses and analyzing the potential value inherent in the size and location of each course.

Access to Transit Keeps Potential Developments Connected

Patrick Condon highlighted the potential benefit of repurposing golf courses that are particularly close to "transit, schools, and other amenities." From preliminary background research on transit-oriented development and from what I was told by Patrick Condon, transit stops are something to look for nearby development areas that would increase their desirability as a development site.

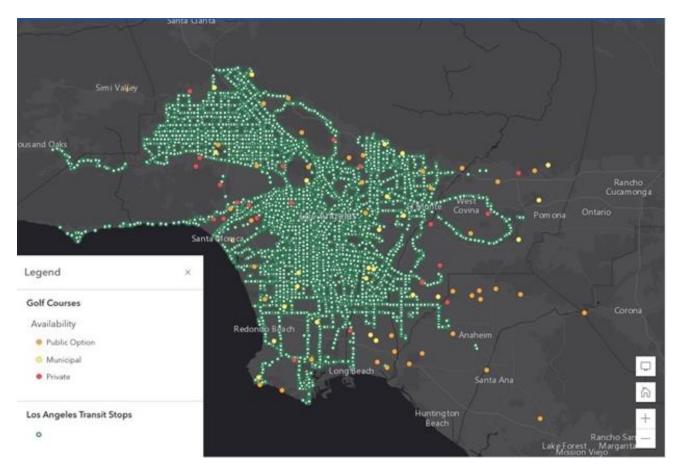


Figure 5: Golf Courses and Transit Stops

Figure 5 shows all golf courses within Los Angeles County (private courses in red, municipal courses in yellow, and public option courses in orange) as well as all transit stops as of 2018.

Most of the golf courses closer to the city center tend to be public courses. There are also more transit stops closer to the city center so using the Transit Oriented Development metric, the most

desirable courses for redevelopment that incorporates affordable housing and parkland are the five public courses Bell Gardens, Maggie Hathaway, Rio Hondo, Los Amigos, and Chester Washington. This transit analysis, though, does not get into the frequency of these routes. Some routes, while having fewer stops, run more frequently and therefore have greater access. Deciding which courses to repurpose is a grand opportunity to do the most good, and it is also part of the challenge.

Golf Player Numbers May Be Increasing

In discussion with Michael Shull, he said that from his own experience working in the parks system that he has seen firsthand an increase in the amount of people playing golf in the past two years. He cited the cause for this increase to be the COVID-19 pandemic pushing people towards activities that could be played outdoors with lots of space between participants. Professor Patrick Condon, though, restated that there has been a decade long trend in decreasing player numbers. Despite the new surge of more golfers in Los Angeles, it is unclear if this trend will continue or if it is a trend unique to the pandemic that we could see return to the decreasing trend. From the literature review on golf trends and the near one thousand golf courses that have closed in the past decade, it seems that the recent uptick in Los Angeles golf players could be a distraction from creating change that would lead to more beneficial land use within the city.

Challenge of Public Acceptance

In my interviews, there was a discussion of the other social and political challenges that repurposing golf courses would face. Everyone interviewed recognized the difficulty of a project that would repurpose golf courses. Changing zoning codes and altering public acceptance were mentioned in my interviews as especially tough aspects. Everyone interviewed spoke on the

particular difficulty of getting people that live near golf courses to accept a change that might bring more people to their neighborhoods, potentially lower housing values, and remove a game some consider to be an asset to the neighborhoods they are in. Patrick Condon added that from his experience working in and writing the field of city design, "selling off" public land for housing is not "immediately popular." Rick Cole stressed the importance of getting the neighborhoods around the courses on board for course redevelopment and pointed out that working towards public acceptance would be one of the more challenging aspects of repurposing courses for housing, public parks, or both. Cole did offer a potential solution saying he felt that "It would take something like [the Base Closure Act]" in order to make this kind of project possible. The Base Closure Act happened after the Cold War when the US Department of Defense wanted to close military bases that were no longer needed but several members of Congress received localized pushback from constituents around many of those bases. In order to garner broader support, the act closed several bases at a time around the country saving billions of dollars. This meant that either multiple bases would close saving the Department of Defense money, or no bases would close, and money would continue to be wasted (Mann, 2018). Mimicking the Base Closure Act would mean taking to a vote that would see either multiple golf courses repurposed across the city, or none. This would potentially increase the opportunity for something to pass by widening the voter base and lessening the outcry over individual courses by the opponents to the developments who live nearby.

Another reason public acceptance of this project could be so important is that, as Michael Shull pointed out, Los Angeles is a charter city³ that needs the vote of the people to make these kinds of zoning changes. My own research, however, has shown that while changing the city charter requires a vote of the people, zoning changes and development of areas zoned as open

space can happen without altering the city charter. The Los Angeles Board of Supervisors, who can initiate changes to zoning codes (How to Request a Zone Change, n.d.), voted to approve development of a struggling golf course in Carson (Evains, 2020), without changing the city charter. While having a charter for Los Angeles might make the zoning changes or development of golf courses more difficult than other cities, it is still completely possible and should not be written off as too challenging.

In the next section I offer some ideas for addressing these and other challenges. Focusing on providing new affordable housing developments, I suggest how a task force could look at the golf course zoning changes, public opinion work, and land acquisition to take steps towards solving developable land scarcity in Los Angeles.

RECOMMENDATIONS

My recommendations are informed by the interviews and literature review undertaken for this project. The goal of the recommendations is that Los Angeles makes efforts to create change that can solve the desire for developable land by effectively analyzing the possibility of repurposing golf courses and passing legislation that eases and encourages the redevelopment of those spaces.

Establish a Repurposing Task Force

Initial research suggests that there is merit in repurposing golf courses as a solution to the developable land scarcity in Los Angeles. For that reason, and from the support of my findings, I suggest that the city of Los Angeles seriously evaluate repurposing certain courses. This step would mean creating a task force that would focus on assessing courses in similar ways to how I

have done so in this project, evaluating what makes a golf course appropriate to repurpose. This committee would be made up of experts on housing, land use, and Los Angeles politicians, similar to the people I interviewed. To ensure a complete analysis through different lenses and with different views, it would be necessary to have individuals from different career backgrounds look at several logistical methods for actually making the zoning changes as well as the social and policy changes necessary to alter the landscape of Los Angeles in this way. The task force would need to consider concerns like that of Michael Shull who considers the charter of Los Angeles to be a large barrier. That is why this taskforce of experts could listen to ideas like Rick Cole's suggestion of imitating the Base Closure Act and think realistically about how to implement those kinds of strategies in order to show the people of Los Angeles that repurposing golf courses can lead to a greater use of certain spaces.

Use Established Metrics for Choosing Course Redevelopment Sites

In order to effectively determine which individual golf courses are the best for repurposing, the committee would need to develop a framework for that decision. The literature review and research have informed which aspects of courses need to be analyzed in order to decide which of those should be sites for repurposing and development. This committee should analyze each public golf course in Los Angeles and consider the size of the course, the distance from the city center, distance from large parks, proximity to housing needs, and proximity to amenities like transportation and schooling. If this taskforce was to look at the Rio Hondo golf course, for example, they would find that the course is 145 acres, and it is 12.7 miles from the city center. From park analysis and mapping like in figure 4, the taskforce would also find that Downey, where Rio Hondo Golf Club is located, has 1.1 park acres per 1,000 residents, which is below the county average of 3.3, as well as the fact that only 39% of Downey residents live

within ½ mile of a park (Los Angeles Countywide Comprehensive Park & Recreation Needs Assessment, Study Area 162, 2016.). Additionally, from housing research and mapping like in figure 2, the taskforce would find that Downey has approximately 258 unhoused community members (although this data is from 2020) and has high community need. Lastly, the taskforce would find that, while the current location of Rio Hondo Golf Club is not within a ½ mile of any transit hubs, there are bus stops the north and south ends of the course. More importantly, perhaps, they will be very near to a proposed new rail line that is part of the metro expansion project aimed to be completed by the 2028 Olympics (Uranga, 2022). These metrics could then be compared with Penmar Golf Course for example, which is only 53 acres. Santa Monica, where Penmar is located has 1.4 park acres per 1,000 residents and 79% of residents live within ½ mile of a park (Id., Study Area 182, 2016.). The housing need in Santa Monica is higher than Downey, though, with 1676 unhoused community members (figure 2), and 6009 unhoused people in the SPA which includes Santa Monica (figure 4). The closest bus stop to the current Penmar course is just about a ½ mile away and the proposed expansion of the Metro Purple line towards Santa Monica is still much further than that (Purple (D Line) Extension Transit Project, 2021). The taskforce would decide which of these metrics were most important and, along with potential added metrics, would choose which courses provide the best locations for potential developments.

While my research covered these listed metrics thoroughly and illustrated some with mapping, more research would be beneficial on player data. For example, Michael Shull pointing out that due to the COVID-19 pandemic, golf has seen an increase in the number of players in the past couple of years. Additionally, throughout my research process I was very curious how far individual golfers traveled to get to each course. This committee could create a survey that

would be given to golfers in Los Angeles to find out if courses are serving the people in the communities that they are in, or if people are driving longer distances to play at those courses. The findings of this project do not suggest that golf courses should be eliminated, but that they may exist in excess and that evaluating their use by several different factors is important for determining their benefit to the community. The taskforce could also follow the lead of the Reason Foundation that analyzed the financials of golf courses across the country. In Los Angeles, it was difficult for the Reason Foundation to separate the financials of individual golf courses with the financials of the parks system as a whole. This taskforce could work to do just that, find which golf courses are losing the city money, and prioritize those courses in repurposing efforts.

There is enormous potential in repurposing these underutilized spaces for greater public good, and ideally, combining affordable housing and public parks in their redevelopment. A task force that could continue this research and work to find methods of implementing policy that would see golf courses repurposed for max-use benefit could be the beginning of reevaluating how we use all kinds of spaces and open opportunities for improving land use throughout Los Angeles.

Adopt Legislation to Ease and Encourage Development

In addition to creating a taskforce and working to make sure the courses of focus are those that are best suited for redevelopment, legislation should also be adopted that would ease the process of changing zoning laws and beginning development. Following examples of people like Assemblywoman Cristina Garcia who introduced AB 672 to make California golf courses exempt from what she feels are unnecessary environmental protections, would be a crucial first step in the process of repurposing golf courses. I suggest also introducing new legislation that

would see all public golf courses in Los Angeles rezoned so that they are not in the same groupings as public parks. Like a localized version of AB 672, this would not mean that all golf courses would be repurposed, it would simply allow the option to be voted on by the Los Angeles County Board of Supervisors, similar to what happened with the golf course in Carson. Creating a local version of AB 672 would allow the legislation to use language that considers the city charter and the Los Angeles Board of Supervisors. While AB 672 has struggled to pass at a state level (Garcia, 2021), a more localized version could be a more effective method to making necessary changes to the zoning and protection of public golf courses.

CONCLUSION

In conclusion, Los Angeles is facing a lack of developable land when it needs it most—in a park poor city enduring a great housing crisis that continues to grow. As a sprawling city that limits its ability to grow smart and sustainably with difficult zoning codes, Los Angeles needs to examine where land is potentially misallocated within the city and reconsider how to use that space for max-benefit land use.

The repurposing of golf courses presents a real solution to the lack of developable land in Los Angeles and creates opportunity to create new socially beneficial development across the city that limits sprawl, increases affordable housing, and possibly increases accessibility to versatile open park land by reassessing how public land is used to bring the most benefit to the people of Los Angeles.

Los Angeles must create a taskforce that analyzes public golf courses in the county using the metrics in this paper to decide which courses could be redeveloped. Additionally, accompanying legislation that mimics some of the design and function of AB 672 should be put forth at a local level to ease the zoning changes and the removal of environmental protections of

public golf courses in the city. If the city does not make creative and drastic changes, there will continue to be a housing and land use crisis in Los Angeles. Following these suggestions and thoroughly interrogating land use with a clear focus on maximizing social benefits could lead to the redevelopment of hundreds of acres in Los Angeles on land currently allocated to the game of golf.

APPENDIX

Interview Questions

Public Policy Experts:

- How could golf course transformation happen in Los Angeles / California?
- What kinds of benefits do you think golf courses bring to Los Angeles?
- What do you think golf courses could be transitioned to?
- What do you see as the main benefits of repurposing golf courses?
- Do you think a bill like AB 672 is necessary in this process or could transformation be done course by course?
- What are some policy challenges to transitioning golf courses?
- What are some social challenges to transitioning golf courses?
- Why could golf courses be a good space for redevelopment? As opposed to other large spaces of land?

Professors:

- What do you think is the biggest pull to transitioning golf courses?
- Who do you think will be the leading force in transitioning golf courses?
- How important do you think the location of courses is important when thinking about which courses to attempt to redevelop?
- What are the biggest challenges in redevelopment of courses?
- Why could golf courses be a good space for redevelopment? As opposed to other large spaces of land?

Community Organizations

- What kinds of community needs do you think could be addressed with the redevelopment of golf courses?
- How is the lack of housing in LA a land use issue?
- Why would golf courses be a good space for repurposing?
- Because LA has so many public golf courses, how do you think the government's role in repurposing courses changes?

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