

# The Last American Superhighway

The Southwest Bets on Interstate 11





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In 1919, shortly after the close of World War I, a young Army lieutenant named Dwight David Eisenhower participated in one of the greatest overland expeditions in U.S. history, only slightly less momentous than those of Lewis and Clark, the Pony Express and the pioneers. The Army Transcontinental Motor Convoy took 62 days to cross 3,250 miles between Washington, D.C. and California, where it finally ended in San Francisco.

Eisenhower would have recognized none of the romance that modern-day drivers see in the open road. Where he went, there were no roads — the convoy built its own passages and bridges. Between the rutted paths, achingly slow speeds and desolation, Eisenhower probably had all the reasons he needed to imagine linking every major point of interest in the country with safe, solid roads. Perhaps no reason loomed so large as the brackish mud flat that nearly swallowed the convoy in Utah.

While the future president was sinking up to his spats, things were no more inspiring to his south and west. Combined, the towns that would become the largest cities in Arizona and Nevada amounted to 33,000 people — with Phoenix 10 times bigger than Las Vegas — all enduring twin agonies of rail-warping heat and mindnumbing isolation. To the planners who mapped out the initial 42,500-mile Interstate Highway System in the 1940s, these cities, then, were nothing if not inconsequential; "tiny dots," in the words of Earl Swift, author of *The Big Roads*.

Like the railroads before them, the interstates that crossed the southern half of the United States focused on coastal California. Interstate 40 and Interstate 15 merge in Barstow, and then meet up with Interstate 10 near San Bernardino. The nearest north-south link between interstates 10, 40 and 70 (the eastward extension of 15) is Interstate 25, a full 670 miles from Barstow on the eastern flank of the Rocky Mountains. Uninterrupted desert was the only thing between two tiny dots, Phoenix and Las Vegas, that within a couple of generations would emerge as two of the country's most robust economies.

Given the full and quick nature of their transportation since the 1940s, it is somewhat surprising that still today, the two cities remain without an interstate connection, a distinction that makes them the largest pair of adjacent cities in the country disconnected from the system's asphalt ribbons. But if a growing coalition of boosters and public officials get their way, that will soon change with the arrival of the country's next — and maybe last — great highway project: Interstate 11.

The proposed interstate would traverse the roughly 300 miles of punishing desert between the Vegas strip and Phoenix's strip malls, with little but a handful of bighorn sheep and an army of saguaro cacti along the route. The project's scale would hearken

In some sense, this potentially monumental undertaking could fulfill a psychological need, a sort of obsessive-compulsive desire to "complete" the national highway grid.

back to the early days of the Interstate Highway program. After years of speculation and lobbying, Interstate 11 finally received federal designation in the U.S. Department of Transportation and Federal Highway Administration's MAP-21 bill, passed by Congress signed by President Obama in July. In an act of inside-the-Beltway poetry, Congress approved the highway designation 56 years to the day from when President Eisenhower signed that first surface transportation bill.

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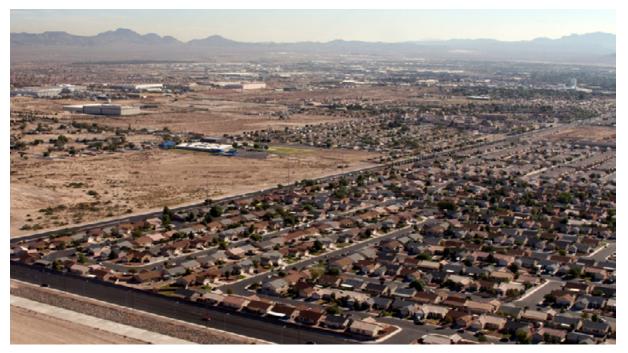
a psychological need, a sort of obsessive-compulsive desire to "complete" the national highway grid. Cartographically, it would confer a new status on the route, which would no longer be considered a secondary backwater road. And, economically and demographically, supporters say it would lead to a new era of growth in the region.

"We've been adding spurs and beltways but we have not been adding major city-to-city connections like this," said Owen Gutfreund, author of *Twentieth-Century Sprawl: Highways and the Reshaping of the American Landscape*. "This is on a scale that is not currently contemplated elsewhere."

Whether the desert southwest is, however, an ideal place for growth remains to be seen. Las Vegas and Phoenix have, so far, specialized in the type of low-density, auto-dependent development that first became popular in the 1950s and is now derided by many progressive planners as wasteful and old-fashioned. The cities share some of the same water supplies and are both expected to melt as the global climate heats up further. Activists straining to promote compact downtown development remain at loggerheads with developers tearing up the urban fringe.

Across the country, many cities are contemplating the removal of freeways and the promotion of alternative transportation. The creation of a new freeway — one that could cost billions, trample desert habitat and bring thousands of thirsty residents to an arid land — may be a costly anachronism, the final piece of Eisenhower's legacy.

"You're talking about two cities that have a big problem with sprawl, in both Phoenix and Las Vegas," Gutfreund said. "If you build a new interstate highway, you're going



Las Vegas: Despite its large, spread-out population, the Las Vegas region (pictured) lacks a comprehensive public transit system. Proposals for high-speed rail lines introduced in 2010 have gone nowhere.

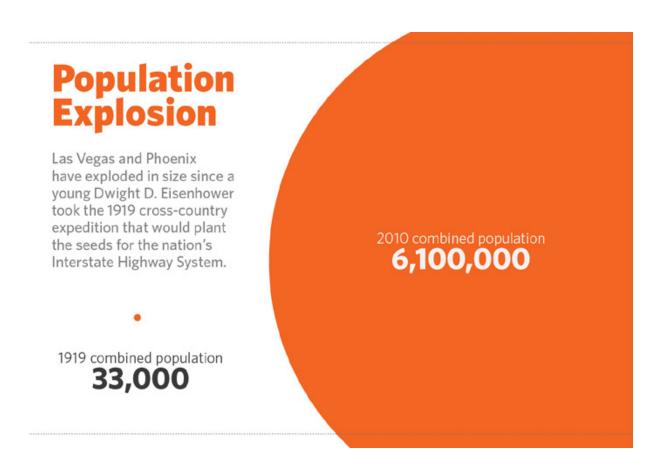
to build another inducement for more miles driven per person and a less sustainable development pattern."

But in an environment hungry for jobs and investment, how will these concerns play out against a familiar siren song of progress and an equally compelling refrain from regional boosters that the new connection is needed for the area's continued prosperity?

### ROAD TO LAS PHOENIX, THE MEGA

Since they were first overlooked by the mid-20th century planners of the interstate highways, the populations of Phoenix and Las Vegas have expanded to, respectively, 4.2 million and 1.9 million, all buffeted by the blasts of hundreds of thousands of air conditioning units.

Las Vegas and Phoenix have been the two of the fastest-growing metro areas in the country over the past 50 years, both with more than 33 percent growth in the 2000s. Though the housing crisis of 2008 hit them harder than almost any other metro area, their long-term growth shows no signs of abating. A 2009 Census Bureau report projected that between 2008 and 2030, Phoenix will grow by 58 percent. Researchers



at the University of Nevada-Las Vegas project that the Vegas metro area will grow from just under 2 million today to almost 2.7 million, an increase of about 35 percent, by 2030.

These figures compare with a projected 22 percent increase in the total population of the United States by 2030.

Despite the growth, and the designation in the recent highway bill, no federal money has been allocated for the project, and there is no timetable. But that hasn't stopped boosters in both cities from dreaming about what might happen when two of the world's great desert metropolises can join forces.

With the new highway, both cities would hope to turn up the volume on their economic prominence (to 11, if you will). They would become, in a word, not just metropolitan, but megapolitan.

If a city like San Francisco is a quintessential U.S. metropolis, then the interstate's Las Phoenix creation could become a defining megapolis. What distinguishes metropolitan from megapolitan is scale. While a metropolitan region constitutes a place with a population of 50,000 or more, a megalopolis is a clustered network of cities with a population of about 10 million or more. As Robert Lang, director of

the Brookings Institution's Mountain West division, and Arthur C. Nelson describe in their 2011 book *Megapolitan America: A New Vision for Understanding America's Metropolitan Geography*, these clusters of cities — connected by culture, commuting patterns, shared capital and shared knowledge — and complementary industries are emerging as the fundamental geographic unit of the global economy.

Nelson and Lang identify 23 megapolitan areas, 10 of which are in the United States, all of which are abuzz with activity. These clusters are competing directly, if imperceptibly, with counterparts in India, Europe and Asia. Globalization, they argue, does not mean, as some have argued, that geographic place is now irrelevant. To the contrary, they argue that integration that is happening between places that are oceans apart is also strengthening ties between places that are only dozens, or perhaps a few hundred, miles apart. Hong Kong now does not so much matter; instead, it's the Pearl River Delta. New York will remain ascendant in part because it's only a morning's Amtrak ride away from Boston and Washington, D.C.

(As the push for the new highway has gained momentum, investors have also suggested moving forward in the region with a variation on Amtrak's Acela line — privately backed high-speed rail trains with names like Desert Xpress, which would link Los Vegas with Los Angeles, and Desert Lightening [sic], which would have a T-shaped system linking all three cities. Unfortunately for rail fans, these plans have generated far less support from the public sector. Nothing has come of either line since Genesis High Speed Rail America introduced the concept in June 2010.)

Lang and Nelson argue that these megapolitan regions take cities' natural economic virtues and magnify them, as adjacent cities, and their respective suburbs and edge cities, build on each other's strengths. While megapolitan clusters abound, from Los Angeles-San Diego to Boston-New York-Washington, Lang argues that Las Vegas-Phoenix can become the country's next great megapolitan cluster only if it gets the same infrastructure that all the others have.

"Las Vegas and Phoenix aren't asking for anything special," Lang said. "They're just asking for recognition [of] their scale now... could they please get what routinely exists between cities in the east that are mere specks compared to them in terms of scale."

In their early days, the cities drew residents by the carload, arriving from the east, first via thin macadam ribbons like Route 66 and then, in the postwar years, via concrete arteries like Interstates 10 and 15.

Arguably, the only driving you'd want to do to get from Las Vegas to Phoenix, or viceversa, involves being dropped off at McCarren Airport and picked up at Sky Harbor.

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Of course, truckers and unlucky motorists can already drive between the two cities via U.S. 93. Thousands do it every year. Surveys show that 9 percent of visitors to Las Vegas are from Arizona, and 90 percent of those visitors drive. And yet, at the height of summer, the 5.5-hour trip can take place in heat upwards of 110 degrees. It is as close to a highway to hell as one can imagine.

The route includes stoplights and two-lane sections as it plods through Boulder City, crosses the Colorado River via the new Pat Tillman Memorial Bridge, and plunges on a southeasterly path from the Mojave and Sonoran deserts, past outposts such as Kingman and Wickenburg, entering Phoenix's vast orbit in the suburb of Surprise.

Engineering studies are a long way off, but officials at Nevada and Arizona's respective departments of transportation say that, geographically, Interstate 11's right of way would not deviate radically from that of Route 93. Many segments of the new interstate would in fact use Route 93's roadbed, upgraded to interstate standards. Other segments, such as the Boulder Bypass, would have to be built from scratch. The highway would link up with Interstate 10 to the south and west of central Phoenix; in Las Vegas, 93 is already a full-fledged freeway, amid the tangle of 15 and 215.

At an estimated cost of at least \$20 million per mile, the result would be a fully divided interstate, with a minimum of two lanes in each direction and all the safety features, engineering and uniformity that drivers between every other pair of major cities have long enjoyed. It will cut an hour off of the current drive, thus pulling the cities just that much closer together. Historically, the introduction of an interstate highway has cut travel times by 20 percent, according to a 1996 study by the American Highway Users Alliance. That study also contends that every dollar spent on highways correlates with six dollars' worth of economic growth.

In the 1950s, the new interstates contributed to 31 percent of annual productivity growth in the U.S., according to a 2006 study conducted by the Transportation Research Board.

"I don't know any downsides," said Tom Skancke, a Las Vegas-based public affairs consultant and one of the most vocal supporters of Interstate 11. "The West needs another north-south corridor to move people and goods."

### TAPPED OUT

Last year, a New York University professor named Andrew Ross published a book about Phoenix called *Bird on Fire: Lessons from the World's Least Sustainable City*.

For Ross, the city is on its way to becoming a 21st-century Detroit, another once fast-growing metro that simply can't sustain itself.

From 1990 to 2007, Arizona added fossil fuel pollutants faster than any other state, at a rate more than triple than national average. By 2005, the region once promoted by doctors as a clean air haven for those seeking a respite from respiratory illness was earning the American Lung Association's lowest grades for air quality. The city's innerring suburbs are still dealing with Cold-War era industrial pollution that has left some of the worst groundwater contamination in the nation — and that's the water that is there; the region has been on perpetual drought watch for more than a decade. Two years ago, the surface of Lake Mead dropped to within 12 feet of the level that would have triggered automatic rationing in Phoenix. Five years earlier, droughts on the Salt and Verde rivers compelled the city to pull more water from the Colorado.

Meanwhile, temperatures have risen by almost 2 degrees Fahrenheit in the past several decades, more rapidly than any other state in the lower 48, and are projected to continue to rise, according to the state's leading climatologists. The elevated temperatures will only worsen the situation; ozone and smog concentrations rise with higher air temperatures and growing energy use. Also aggravating matters are urbanization and, yes, more roads. Sandy Bahr, director of the Arizona Chapter of the Sierra Club, said that she is particularly concerned about the urban heat island effect, in which buildings and asphalt magnify ambient temperatures. With climate change, the North American Regional Climate Change Assessment Program projects that sustained heat waves of 114 degrees or higher will become common in Phoenix by 2040.

"It is a region in the bull's eye of global warming," Ross said in a recent interview.

Residents engaged in the city's fledgling sustainability movement, like Edward Jensen, a blogger and outspoken advocate for a denser central Phoenix, say that the interstate will only worsen the region's already pressing environmental woes. "Phoenix has to solve many issues within its own boundaries before it thinks about expanding further," Jenson said. He and other urban activists have long decried the region's dependency on automobiles, pushing the city to invest instead in more forward-looking transportation solutions, such as Phoenix's light rail line, now five years old. The tension between highway boosters and those committed to a more transit-accessible urban region is "huge," said architect Taz Loomans, another Phoenix-based activist. "For the most part," he said, "building highways is winning."

The city's last mayor, Phil Gordon, built a reputation as a green leader with his goal of making Phoenix "the most sustainable big city in the world." Term limits ousted Gordon from office early this year, but his policies left a legacy. The city's water

consumption has fallen from 250 gallons per day to 200 thanks to a range of City Hall-backed efforts, from installing low-flow toilets in public buildings to promoting the replacement of lawns with native plants. The city now uses less water total than it did 10 years ago, despite the addition of more than 300,000 new residents.

Yet despite a growing consensus over the need to conserve the desert region's limited resources, current Mayor Greg Stanton, a Democrat, and other regional leaders are working to build a parallel consensus around the need for the new highway, a development that is in many important ways at odds with the existing green mandate.

A recent resolution in the Phoenix City Council was unequivocally supportive of the development of Interstate 11. Lamenting the lack of connectivity between Phoenix and Vegas, the resolution requested "that the States of Arizona and Nevada, and the United States Congress recognize the needs and support of these local and regional efforts in the next transportation authorization in 2012, and in future years, as well as other policy and funding opportunities that may be available."

In Las Vegas, a drought in 2007 gave many developers pause, and the city has gained praise for encouraging more efficient building and, through methods such as water recycling, achieving lower rates of water use since then. Developers, though, are chomping at the bit for the completion of a multibillion-dollar pipeline that will supply the city with groundwater pumped from ancient aquifers in the northern part of the state. That infusion of water is bound to set off another round of development.

In Ross's view, the political support portends the money and resources that stand to be made — and lost—if the interstate comes to fruition. The new highway, he said, threatens to wave in another era of reckless exurban construction and all that it brings, including increased pollution, natural habitat loss and water consumption patterns outsized to supply.

"Freeways are signals to continue to build outward," Ross said. "Any announcement of a large building project that involves freeways is a green light to homebuilders to continue building in the same unsustainable way they have been building."

### TYING UP THE CLUSTER

Ever since Lewis and Clark set out from Camp Dubois, the movement of goods in the U.S. has followed latitudinal patterns dictated not just by the orientation of road and rail networks, but also the location of ports — primarily New York-New Jersey on the east coast and Los Angeles-Long Beach on the west.

With that in mind, the ultimate dream of Interstate 11's armchair planners is not simply to build a road between two cities but rather a link between two countries, and

maybe three. They envision extending the highway south to the Mexican border and north as far as Idaho, or even Canada, enabling international trade between the three neighboring countries and the sea-linked world beyond, with boxes moving between cargo hills and 18-wheelers bound for the open road. (Mexican officials have long planned a major deepwater port at Punta Colonet, midway down the Baja Peninsula. Mexico can offer inexpensive rates to off load cargo, but it still needs rail and road connections to get goods quickly into the interior of the U.S. The highway would connect the Mexican port to the Canadian border through Nevada.) The new intermodality will, they say, fundamentally affect the movement of goods through the western U.S., putting Las Vegas and Phoenix in the middle of the action.

"Las Vegas and Phoenix aren't asking for anything special," Lang said. "They're just asking for recognition [of] their scale now."

"[Los Angeles, Las Vegas and Phoenix-Tucson] together form a cluster," Lang said. "That cluster is the kind of space that in the future will include whole regions of China, whole regions of Europe, whole regions of the U.S. where there are supply chains, common commuter sheds."

Lang describes the current economic outlooks of Phoenix and Las Vegas in colonial terms. He compares southern Nevada and interior Arizona to African colonies under the rule of bureaucrats who designed transportation networks to link the interior with the coasts, thus making it easier for their traders to descend from Europe, exploit resources and quickly sail home, but not making internal trade any easier. In Lang's metaphor, Los Angeles is the colonizer upon which both Las Vegas and Phoenix rely as a trade partner and as portal to international commerce.

"L.A. is the single largest exporter in the United States," Lang said. "It's a gateway especially to the largest growth in the global economy, the Pacific Basin." There is little doubt the arrangement benefits all three cities, yet the benefits to the smaller cities are not nearly as powerful as they would be if they were less reliant on L.A.

Currently, an average of 13,000 cars cross the Arizona-Nevada border via U.S. 93 every day, and 23,000 cross the Nevada-California border via Interstate 10. The highway would create not only a logistical connection for both tourists and the goods movement industry, but also a symbolic connection that will blaze a path for knowledge and capital to flow in a triangular pattern that could be vastly more productive than the current relationship.

Zappos has already proven that Las Vegas can efficiently send anything anywhere. With Interstate 11, every shoe going south and west can arrive that much more quickly. And while a region's ambitions should not depend on how quickly Skechers and Jimmy Choos can arrive on a doorstep in Plano, the most ardent boosters of Interstate 11 believe that the road will give the region the edge it needs to compete globally.

For Las Vegas, the highway would be part of a larger "economic development reidentification process," advocate Skancke said. The city's tagline has long been "what happens in Vegas, stays in Vegas"; the new highway would make it so if one wants to take whatever it is that happened elsewhere, they could — and could do so efficiently.

But while leaders in Phoenix and Las Vegas are the loudest advocates for the new routes, it's the quiet towns along the would-be interstate — there are only two of them right now — that stand to bear the brunt of the road's impact.

"The track record is that projects like that have more of an impact on the space between cities than on the cities themselves," Gutfreund said. "Unless it's an instance where there's a lot of service industry business that... could get done in the two cities that don't now have an efficient link, the more likely outcome will not be to the benefit of either city but to the benefit of the spaces in between."

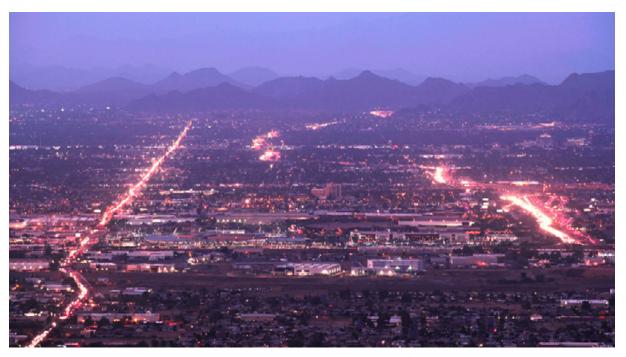
Kingman, famous for being a way station along Route 66, would sit in the crook of two interstate highways. Immortalized, along with so many other dots along Route 66, for all of two notes in the song "(Get Your Kicks on) Route 66," Kingman is not so much a desert oasis as it is the epitome of roadside America: Gas stations, motels, strip malls and then more desert, as far as the eye can see. Its current population of 28,000 could skyrocket if the town turns into the crossroads of the new Southwest.

Kingman's mayor, John Salem, welcomes that prospect.

"I'm all for it," Salem said. "The more traffic coming through the Kingman area, the better. It would definitely bring more traffic and more commerce to our area."

That development, however, is not likely to reinforce Kingman's image as an appealing, Main-Street-USA sort of town, according to Gutfreund.

"The undeveloped spaces between the cities will become more developable, and usually that will happen faster than planners can get around to a good, thoughtful land use plan," Gutfreund said.



The proposed interstate linking Phoenix to Las Vegas would be a catalyst for more building in the undeveloped areas between the two sprawling desert cities. While economic development officials tout the benefits of the prospective growth, environmentalists say the new growth will add to the strain on limited water supplies and worsen the region's already low air quality.

## A LONG HOT ROAD

For better or worse, Phoenix, Vegas and their neighbors likely won't have to worry about interstate-induced economic integration for a great long while.

Though the MAP-21 federal highway bill provides \$80 billion in highway funding for 2013 and 2014, there is no sign that an earmark for Insterstate 11 will manifest anytime soon. Recent trends have put an ever-greater share of the burden for highway construction and maintenance on states. In fact, many prominent voices argue that the notion of building a brand new interstate represents a catastrophic distortion of what the priorities should be.

"Right now we have many, many, many federal highways that are in need of maintenance and restoration," Gutfreund said. "We're not spending enough money on maintenance... but you don't get political bang for the buck just for sustaining what you have."

Interstate 11's backers might say that any expenditure on a new highway will be worthwhile because of the macroeconomic returns that it will generate. But seed money is hard to come by.

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# **Rising Temperatures**

Phoenix sits in the "bull's eye" of climate change; the region is getting hotter and drier faster than any other part of the country. The state's leading scientists project that sustained heat waves of 114 degrees or higher will be common there by 2014. Asphalt and buildings magnify ambient temperatures, which means a new interstate won't help matters.



"I think we're all in agreement: It would be ideal to have an interstate,"said Scott Magruder, a spokesperson for the Nevada Department of Transportation. "Times are so tough and we have a lot of needs in the state. I think a lot of this would have to depend on federal funding.

Meanwhile, Interstate 11's backers say that any expenditure on a new highway would be worthwhile because of the macroeconomic returns that it will generate. All sides agree that the investment will likely have to come from Washington. "Times are so tough and we have a lot of needs in the state I think a lot of this would have to depend on federal funding," Magruder said.

Historically, pro-development stakeholders have long overshadowed environmentalists and other advocates of slower growth in both cities. Indeed, growth has arguably been their primary business since the mid-20th century. While proponents of Interstate 11 are organized and vocal, Bahr and others acknowledged that no such groups have yet emerged to chain themselves to bulldozers.

Even so, the development of Interstate 11 — if it happens at all — is possibly decades away. The United States built more than 40,000 miles of interstate highways between 1954 and the 1980s, and they get credit for helping the country grow and prosper. While Interstate 11 remains just a fanciful line on a map, the next generation of megapolitan cities and megapolitan clusters are growing apace.

Meanwhile, across the Pacific, China is building its own national highway system. Since 2000, it has built roughly 30,000 miles. In the next eight years, it plans to build 23,000 miles more. Some in the desert Southwest might say that Interstate 11 and other aggressive public and private investments are necessary to maintain the United States' edge over what is now its biggest economic partner and rival.

And yet for all of China's highways, it too is projected to face a water shortage of epic proportions. This race, then, may not depend on which cities can move goods and people more quickly, but rather on which cities are going to dry up and blow away first. Highway or not, the Las Vegas or Phoenix of the future might not look so different from the lonely desert outposts that Lieutenant Eisenhower would have known. >



### ABOUT THE AUTHOR

**Josh Stephens** has covered planning, land use and architecture as an editor and freelance journalist for the better part of a decade. He is the editor of the California Planning & Development Report, and previously served as editor of *The Planning Report* and *Metro Investment Report*, monthly newsletters covering, respectively, land

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