INFRASTRUCTURE

California is a microcosm of America and is the model for building a climate-resilient future. The goals the state has adopted and the policies it has set foreshadow the changes that society must make to address climate change. This leadership begins with what the state builds and owns and the resources and communities it protects.

The state supports, manages, or regulates significant physical infrastructure. As climate change accelerates, it is a primary obligation of government to improve and upgrade this infrastructure, and to do so in a way that promotes resiliency.

Infrastructure and capital assets allow for the delivery of public services and the movement of goods across the state, both of which are essential components in fostering continued economic growth in California. To continue economic growth, state infrastructure planning must be driven by the present and future needs of Californians, including mitigating the life-threatening impacts of climate change the state is already experiencing.

The 2020 Five-Year Infrastructure Plan (Plan) focuses on how the state's investment in infrastructure, which underpins economic activity, can be leveraged to create a sustainable and resilient California. The Plan recognizes that infrastructure investments are foundational to addressing climate change, expanding opportunity, and supporting economic growth.

This strategy is consistent with Executive Order N-19-19, in which the Governor directed state agencies with primary responsibility over major state-owned or operated assets—the Departments of Transportation and General Services—to align investments with the state's climate goals. The Executive Order also directed the Department of Finance to work with the state's pension funds on a framework to advance California's climate leadership, protect taxpayers, and support the creation of high-road jobs.

This Plan describes how the state will focus its limited resources on core state responsibilities, including but not limited to the state's responsibility to reduce risks from climate change while transitioning to a carbon neutral economy. The majority of the proposed funding in the Plan—more than 76 percent—is dedicated to the state's transportation system, which makes up 40 percent of the state's carbon emissions and is a central focus of the Administration's Climate Budget.

The Plan also addresses other key areas, such as housing, water, and energy, where the state does not always own or operate critical infrastructure, but does play a leadership role by setting goals, eliminating roadblocks, and taking action to spur local government and private sector investment.

COMPONENTS OF THE PLAN

The Plan consists of four main elements: climate resilience, education, broadband, and other critical state infrastructure. Climate resilience consists of investments in housing, transportation, water, energy, and natural and working lands. Taken together, these components form a comprehensive strategy to modernize and expand California's infrastructure.

The Plan reflects the Governor's proposal for investing $53 billion in state infrastructure over the next five years. See the Infrastructure Plan—Proposed Spending figure for a summary of the proposed funding by program area, and the Statewide Capital Funding by Department and Fund Source figure for a summary of the proposed funding by year, department, and fund source. Appendix 1, which provides background on state-owned infrastructure, and Appendix 2, which includes a detailed listing of the specific projects proposed to be funded. These appendices can be found on the Department of Finance's website at www.dof.ca.gov.

Infrastructure Plan - Proposed Spending
(Dollars in Thousands)

Capital Expenditures: Program Area	Five-Year Capital Funding
Judicial Branch	$2,015,579
Transportation / High Speed Rail Authority	$45,286,067
Natural Resources	$1,367,059
Health and Human Services	$25,048
Corrections and Rehabilitation	$974,968
Education	$1,007,093
General Government	$2,636,595
Total	**$53,312,409**

Statewide Capital Funding by Department and Fund Source

(Dollars in Thousands)

Program Area	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Judicial Branch						
Reassessment Projects	$43,647	$182,651	$262,118	$822,351	$704,812	$2,015,579
Subtotal	**$43,647**	**$182,651**	**$262,118**	**$822,351**	**$704,812**	**$2,015,579**
Transportation						
Department of Transportation	8,538,000	8,547,000	8,272,000	7,623,000	7,643,000	40,623,000
High Speed Rail Authority	0	291,000	0	0	3,881,000	4,172,000
California Highway Patrol	141,532	50,075	42,001	47,206	44,457	325,271
Department of Motor Vehicles	54,651	30,291	36,174	12,635	32,045	165,796
Subtotal	**$8,734,183**	**$8,918,366**	**$8,350,175**	**$7,682,841**	**$11,600,502**	**$45,286,067**
Natural Resources						
California Conservation Corps	65,045	125,573	6,790	0	0	197,408
Department of Fish and Wildlife	880	391	0	0	0	1,271
Department of Forestry and Fire Protection	65,642	126,438	184,008	194,853	219,632	790,573
Department of Parks and Recreation	44,055	42,918	41,096	76,625	24,641	229,335
Department of Water Resources	147,000	0	0	0	0	147,000
Tahoe Conservancy	1,472	0	0	0	0	1,472
Subtotal	**$324,094**	**$295,320**	**$231,894**	**$271,478**	**$244,273**	**$1,367,059**
Health and Human Services						
Department of State Hospitals	229	23,121	0	0	0	23,350
Department of Youth and Community Restoration	0	0	122	119	1,457	1,698
Subtotal	**$229**	**$23,121**	**$122**	**$119**	**$1,457**	**$25,048**
Corrections and Rehabilitation						
Department of Corrections and Rehabilitation	182,765	82,533	64,266	320,194	325,210	974,968
Subtotal	**$182,765**	**$82,533**	**$64,266**	**$320,194**	**$325,210**	**$974,968**
Education						
Department of Education	0	284	3,618	0	0	3,902
California Community Colleges	27,639	975,552	0	0	0	1,003,191
Subtotal	**$27,639**	**$975,836**	**$3,618**	**$0**	**$0**	**$1,007,093**
General Government						
Office of Emergency Services	377	57,316	0	0	0	57,693
Department of Justice	9,518	6,541	427,748	0	0	443,807
Department of General Services	721,680	17,227	854,366	16,214	6,272	1,615,759
Department of Food & Agriculture	15,262	56,043	0	2,227	47,302	120,834
Military Department	17,042	15,900	15,900	16,500	16,500	81,842
Department of Veterans Affairs	18,106	286,707	1,847	0	0	306,660
Infrastructure Planning	2,000	2,000	2,000	2,000	2,000	10,000
Subtotal	**$783,985**	**$441,734**	**$1,301,861**	**$36,941**	**$72,074**	**$2,636,595**
Statewide Total	**$10,096,542**	**$10,919,561**	**$10,214,054**	**$9,133,924**	**$12,948,328**	**$53,312,409**
Proposed, By Fund						
General Fund	289,587	329,697	209,562	327,379	564,027	1,720,252
Special Fund	2,791,998	3,127,622	2,730,734	2,511,729	6,399,270	17,561,353
Non-Governmental Cost Funds	1,074,681	513,278	1,675,878	1,121,141	833,741	5,218,719
General Obligation Bond Funds	233,411	1,017,802	46,440	29,185	0	1,326,838
Federal Funds	5,206,464	5,431,162	5,051,440	4,644,490	4,651,290	24,984,846
Reimbursements/Other Governmental Cost Funds	500,401	500,000	500,000	500,000	500,000	2,500,401
Total	**$10,096,542**	**$10,919,561**	**$10,214,054**	**$9,133,924**	**$12,948,328**	**$53,312,409**

CLIMATE RESILIENCE

In September 2019, the Governor built on and strengthened the state's climate goals through Executive Order N-19-19, which specifically points to the state's pension systems, transportation investments, and state-owned assets as areas where the state must proactively reduce climate risk while investing toward a carbon neutral future by 2045.

Specifically, state and local governments should work towards a future in which:

- People and communities can thrive in the face of climate change in a manner that minimizes risks to public health, safety, and economic stability, while maximizing equity and protecting the most vulnerable residents.
- Natural systems adjust and ecosystems continue to function in the face of change.
- Infrastructure withstands changing climate conditions while continuing to provide essential services.

Achieving a vision where California thrives in the face of a changing climate requires state and local governments to integrate climate risk assessment and adaptation into decisions affecting infrastructure, natural systems, and communities.

In November 2017, the Governor's Office of Planning and Research (OPR) published Planning and Investing for a Resilient California: A Guidebook for State Agencies, which provides guidance for state agencies on how to work toward this vision. The guidance emphasizes consideration of current and future climate conditions based on the best available science. It also prioritizes equity and inclusion, as well as coordination with local and regional partners.

In support of these goals, the Budget proposes $12 billion over the next five years for a comprehensive Climate Budget, which combines Greenhouse Gas Reduction Fund investments with a proposed climate resilience bond and a new revolving loan fund. Taken as a whole, the Climate Budget prioritizes investments in transportation, including vehicles, fuels, and infrastructure, as well as land-based strategies to reduce climate risk throughout the state.

As a part of this package, the climate resilience bond, if approved by the voters in November 2020, will provide $4.75 billion for resilience investments that reduce climate risks in the following areas: water, fire, extreme heat, and sea level rise. It also invests in local resilience centers to provide capacity and technical assistance at the community level.

In addition, the Climate Budget includes strategies specifically aimed at leveraging private sector resources to support the state's climate goals, recognizing that government cannot tackle these issues at the necessary speed and scale without engaging the private sector. For additional details on the Climate Budget, see the Climate Resilience chapter.

HOUSING

Recognizing that California is in the midst of a housing crisis due to decades of underproduction, the Budget continues to support implementation of recent significant investments to increase housing production. By partnering with local jurisdictions to support greater housing production, and by subsidizing the production of affordable and moderate-income housing, the state is creating the conditions for more housing, closer to job centers. This will lead to shorter commutes, which in turn results in better health outcomes, fewer greenhouse gas emissions, and a higher quality of life.

Over the next five years, the state will invest approximately $17 billion to continue to bolster housing production, including an estimated $2 billion from Cap and Trade proceeds for affordable housing and sustainable communities as well as $1.75 billion one-time General Fund from the 2019 Budget Act to promote the production of housing as follows:

- $250 million for planning grants to local governments for technical assistance in developing plans to reach statewide housing production goals.
- $500 million for grants for infrastructure that support higher-density affordable and mixed-income housing in locations designated as infill.
- $500 million to expand the Mixed-Income Loan Program at the California Housing Finance Agency to provide loans to developers for mixed-income developments.
- $500 million ongoing for state tax credits for the development of new affordable housing and for deeper subsidies for preservation projects across the state, helping to maintain the state's overall housing availability.

In addition, the state has identified excess state properties to solicit affordable housing developers to build demonstration projects that use creative and streamlined approaches to building affordable and mixed-income housing.

To support long-term housing production, Chapter 159, Statutes of 2019 (AB 101) provides incentives for local governments to implement pro-housing policies that facilitate planning and construction of housing. At the same time, AB 101 allows courts to hold persistently non-compliant cities and counties accountable to meet their housing goals, including escalating fines and authority to appoint an agent of the court to take actions necessary to bring a jurisdiction into compliance.

The state will continue to pursue policy changes that support housing production as well as hold local jurisdictions accountable to remove barriers to more housing production in the state. The Budget includes $10 million General Fund annually for the next three years to support the state's efforts to increase housing production. The Administration is committed to working with the Legislature this year on additional actions to expedite housing production, including changes to local zoning and permitting processes, as well as adding predictability and reducing the costs of development fees. For additional details see the Housing chapter.

TRANSPORTATION

As California grapples with a housing crisis, the impacts on transportation access and affordability are increasingly apparent. Californians are driving more as they are forced to commute longer distances due to the lack of proximity between affordable housing options and job centers, further exacerbating California's aging road infrastructure as well as climate impacts from transportation. But there is also opportunity for innovative solutions as the sector experiences rapid change through electrification, automation, ride-sharing, and other mobility options. California, home to many of these innovations, must create a transportation system that is flexible and open to the potential for better travel options that meet the state's growing population needs while supporting sustainable, inclusive growth.

To tackle these challenges, over the next five years, the Plan invests approximately $5 billion in public transit and rail infrastructure, and $1.1 billion for active transportation projects, to increase access to multi-modal transportation options. Additionally, the Plan includes continued investment in High Speed Rail. This system will be an economic backbone for the Central Valley, promoting new housing and jobs near rail stations, and will also provide connectivity between Central Valley cities and, ultimately, the coasts.

The High Speed Rail Authority is continuing to construct the Central Valley segment completing electrified High Speed Rail from Merced to Bakersfield with Proposition 1A bonds, federal funds, and 25 percent of the continuously appropriated funding from annual Cap and Trade auction proceeds. Additionally, the state has committed $1.1 billion to locally sponsored projects in northern and southern California that will improve local rail service and benefit High Speed Rail when the system is connected to those areas. The funding provides resources to continue meeting commitments to federal and regional partners, and advancing Phase 1 environmental clearances.

In addition to investing in new transportation options, it is critically important to maintain and restore California's aging road infrastructure. Well-maintained roads reduce wear and tear and also increase the fuel efficiency of vehicles. However, these investments alone will not make a meaningful dent in the state's climate goals, and must be paired with specific programs intended to reduce overall vehicle miles traveled.

Over the next five years, $22 billion will be available for new state highway repair and rehabilitation projects in the State Highway Operations and Protection Program (SHOPP). The Road Repair and Accountability Act of 2017, Chapter 5, Statutes of 2017 (SB 1), increased available SHOPP funding capacity by $8 billion through 2022-23. As the state invests in ongoing road maintenance, it is critical that the state does so in a way that is resilient in the face of physical climate impacts like floods, fires, extreme heat, and sea level rise. The Climate Budget includes investment in the climate research that will underpin these decisions, as well as in programs such as cool road surface investment in areas of the state experiencing extreme heat impacts from climate change.

Over this same five-year period, $3.3 billion will be available for the State Transportation Improvement Program, which provides funding for future multi-modal transportation improvements throughout California. This program supports the implementation of regional Sustainable Community Strategies (75 percent), as well as interregional travel (25 percent). An additional $1 billion for partnerships with local transportation agencies is also included in the Plan.

These programs will complement other investments in low-carbon vehicles and fuels. For additional information on investments in low-carbon transportation programs, see the Climate Resilience chapter.

WATER

As climate change continues to threaten the reliability of the state’s water infrastructure, the Administration is advancing a strategy to build a comprehensive, resilient water system, starting with the Governor’s call for an integrated Water Resilience Portfolio in his Executive Order N-10-19. In the Order, the Governor directed the Administration to develop a comprehensive strategy for a climate-resilient water system. The Order directs the agencies to inventory current water supplies and the health of waterways, assess future demands and challenges, and identify key priorities for the state’s water resilience portfolio.

WATER RESILIENCE PORTFOLIO

Pursuant to the Governor’s Executive Order, the Administration has released a draft Water Resilience Portfolio that identifies the following priorities:

- Maintain and diversify water supplies—The state will continue to support regions to reduce reliance on any one water source and diversify supplies to enable flexibility as conditions change. Diversification will look different in each region based on available water resources. This effort will strengthen water security and reduce pressure on river systems across the state.
- Protect and enhance natural systems—State leadership is essential to restore the environmental health of many of the state's river systems to sustain fish and wildlife. This entails effective standard-setting, and more adaptive, holistic environmental management.
- Build connections—The state aims to improve physical infrastructure to store, move, and share water more flexibly and integrate water management through the shared use of science, data, and technology.
- Be prepared—Each region must prepare for new threats, including more intense floods, deeper droughts, and hotter temperatures. State guidance will enable preparation, protective actions, and adaptive management to weather these stresses.

The Budget prioritizes recommendations emerging from the Water Resilience Portfolio, with 62 percent of the proposed $4.75 billion climate resilience bond dedicated to programs that align with priorities identified in the Portfolio. For additional information on the bond, see the Climate Resilience chapter.

The Water Resilience Portfolio and the Budget build on several Administration-sponsored initiatives already underway.

SAFE DRINKING WATER

To support access to clean and safe drinking water for all Californians, the Administration and Legislature partnered to establish an ongoing, stable funding source to help enable delivery of safe and affordable drinking water. The Safe and Affordable Drinking Water Fund (SB 200) provides up to $130 million annually until 2030 to address the drinking water crisis.

The State Water Resources Control Board (Water Board) is developing a plan to deploy this ongoing funding in a way that complements and leverages existing work using federal State Revolving Fund dollars and one-time bond funds. During this first year of implementation, most of the funding will be used to address immediate drinking water and public health needs, while planning gets underway for long-term solutions in hundreds of communities around the state.

VOLUNTARY AGREEMENTS

The Administration is also working with a broad range of water agencies and environmental conservation groups to develop voluntary agreements to implement the Water Board's Bay-Delta Water Quality Control Plan. The Water Board is required to update this plan to protect fish and wildlife, water quality, and other beneficial uses of water in the Delta and its key watersheds. Successful voluntary agreements hold the promise to adaptively manage enhanced flows and habitat to improve conditions for fish and wildlife. These agreements must undergo scientific peer review and environmental review under the California Environmental Quality Act. Voluntary agreements reflect a collaborative approach to water resources management and native fish and wildlife protection.

DELTA CONVEYANCE

California's main system of water conveyance, which moves a large portion of the state's surface water supply, continues to be under threat from flood, subsidence, earthquake, and climate change. The state-led water system that captures precipitation from the Sierra Nevada mountains and the Sacramento and San Joaquin rivers to provide drinking water to 27 million Californians faces major vulnerabilities as it travels through the Sacramento-San Joaquin Delta.

Most notably, the United States Geological Survey indicates there is a 66 percent probability in the next 30 years that a major northern California earthquake will occur that can disable the current levee-supported conveyance infrastructure in the Delta, threatening the drinking water for more than half of all Californians. Besides protecting statewide water supplies, modernized Delta conveyance for these water projects will facilitate water transfers and groundwater recharge in overdrawn basins.

The Administration is advancing a single-tunnel conveyance project under the Delta to protect this statewide source from levee collapse caused by a flood or earthquake and saltwater intrusion as sea levels rise. This project will be funded by water agencies that will benefit from improved supply reliability. The project is undergoing environmental review and includes significant public engagement to design a project to limit Delta impacts and provide local benefits.

SUSTAINABLE GROUNDWATER MANAGEMENT ACT

Agricultural water demand will likely continue to outpace available water supplies into the future. Simply put, California agricultural production is being shaped by limits on available water supply. The amount of groundwater available for use will be determined by the annual sustainable yield that each groundwater basin can provide under the Sustainable Groundwater Management Act (SGMA), and will be lower than historical pumping levels that have depleted aquifers.

The Administration is focused on supporting local communities' transition to sustainable groundwater use by aligning state investments and policies to enable implementation of SGMA, including: (1) reviewing Groundwater Sustainability Plans submitted in January 2020 and 2022 and assuring basin-wide alignment across the state’s 260 new groundwater sustainability agencies, (2) maximizing groundwater recharge and groundwater banking by streamlining regulations to quickly allow for recharge during periods of extended high flows, including on agricultural land, and (3) supporting flexibility for groundwater sustainability agencies to trade water within basins by enabling and incentivizing transactional approaches, including groundwater markets, with rules that safeguard natural resources, small farmers, and disadvantaged communities.

In addition to the $395 million proposed in the climate resilience bond for projects to implement Groundwater Sustainability Plans, the Budget proposes $60 million General Fund to support local implementation of SGMA. For additional information, see the Climate Resilience chapter.

ENERGY

One of the most important tasks the state faces is to build a clean energy future that provides safe, reliable, and affordable energy, while meeting the state’s climate goals.

Utility investments to modernize the state’s electric transmission and distribution infrastructure will create a system that is resilient to wildfires and other risks, and supports future electricity generation and demand to meet the needs of all Californians. Resiliency investments include grid hardening and vegetation management, as well as grid segmentation and development of alternative power supply to better serve vulnerable areas. Investments in the energy sector will also drive the state’s progress toward transportation electrification. This includes fueling infrastructure as well as clean power procurement to support the growing fleet of electric cars and trucks.

The state will continue to support initiatives that accelerate carbon reduction in the energy sector while reliably powering California's economy. In addition to increasing clean energy generation, this includes:

- Continued implementation of integrated resource planning;
- Progress in energy efficiency and storage technology;
- Further adoption of smart grid technology to automate and optimize the grid;
- Facilitating dynamic pricing;
- Demand response programs;
- Distributed generation; and
- Greater regional coordination.

These measures will play important roles in creating a strong foundation for California's energy future.

In July 2019, California enacted Chapter 79, Statutes of 2019 (AB 1054), and Chapter 81, Statutes of 2019 (AB 111), to protect consumer access to safe, reliable, and affordable power by providing a durable solution to the problems arising from utility-caused wildfires in California. It established a new Wildfire Safety Division, initially within the California Public Utilities Commission to provide specific expertise to oversee utility wildfire mitigation efforts and expenditures. Effective July 1, 2021, the division will be transferred to the Office of Energy Infrastructure Safety within the Natural Resources Agency. This legislation also established a wildfire fund supported in part with shareholder contributions to provide insurance for wildfire liabilities and to protect consumers' access to safe, reliable, and affordable power. The Budget includes $30 million to implement these measures and regulatory efforts to prevent and mitigate utility-caused wildfires.

The Budget reflects necessary support for the Administration's efforts to achieve the required transformation of Pacific Gas & Electric as an investor-owned utility within the bankruptcy process. However, if protecting Californians' interests and ensuring the necessary transformation requires further intervention, including a state takeover of the utility, the Administration will work with the Legislature to secure necessary statutory changes, appropriations to support transactional and planning costs, and liquidity measures. Consistent with the Administration's commitment to maintain a balanced budget and strong fiscal resiliency, any such action would be carefully structured to safeguard the state's General Fund.

NATURAL AND WORKING LANDS

Carbon sequestration will have a central role in the state's long-term strategy to achieve carbon neutrality by 2045. This strategy requires California to enhance the state's natural and working lands by promoting these areas as carbon sinks rather than emission sources. In addition to carbon sequestration benefits, enhancing natural and working lands will strengthen the health and productivity of the state's agriculture sector, help keep air and water clean, and reduce risks to people and nature from climate impacts such as flooding, extreme heat, and catastrophic wildfires. As a result, investing in natural and working lands is a critical ingredient for economic growth, public safety, and climate resiliency.

Building on ongoing investments from the Cap and Trade program, the Budget includes investments in natural and working lands through the proposed climate resilience bond, which would invest $4.75 billion specifically for natural and built infrastructure intended to reduce climate risks across the state. The bond is structured around climate risks, and natural and working land investments are woven through all of the risk categories. Investment into natural and working lands prioritizes projects that serve the dual purpose of reducing risks from physical climate impacts, and increasing the potential of our lands to serve as carbon sinks. For additional information, see the Climate Resilience chapter.

EDUCATION

The state's education system is a critical part of the state's infrastructure from cradle to career. These facilities provide the setting where the state's workforce is trained and the state's future prosperity is ultimately determined. The Budget includes investments in early learning and care, modernized and resilient K-12 facilities and the state's higher education system. It is critical that investments are made in the state's educational facilities to improve the climate resilience of these critical assets.

EARLY LEARNING

The state has made significant investments in the development of kindergarten facilities with the goal of moving more programs from part-day to full-day to improve educational outcomes for children and to better accommodate working parents. The 2018 and 2019 Budget Acts included a total of $400 million one-time General Fund for eligible school districts to construct new, or retrofit existing, facilities for full-day kindergarten programs. Of this amount, roughly $300 million remains available to support the goal of converting existing part-day kindergarten programs to full-day programs. As referenced in the K-12 Education chapter, the Budget proposes dedicating a portion of these funds to support the construction of preschool facilities that will be used to expand access to preschool programs that will serve additional students.

As referenced in the Early Childhood chapter, the Budget includes $75 million Proposition 98 General Fund for preschool facilities that provide inclusive early education. Additionally, the 2018 and 2019 Budget Acts allocated $177 million to support the program, which provides funding to local educational agencies to construct or modify preschool facilities to serve students with exceptional needs or severe disabilities.

Further, as referenced in the Early Childhood chapter, if the Public Preschool, K-12, and College Health and Safety Bond Act of 2020 is approved by voters in March, the Administration will propose statute authorizing the State Allocation Board to provide a new construction or modernization per-pupil grant enhancement to local educational agencies proposing to construct or modernize facilities to expand preschool programs on school campuses. Participants would be required to use the applicable facility to expand the number of preschool students served by the local educational agency consistent with current preschool staffing standards.

K-12 EDUCATION STATE SCHOOL FACILITY PROGRAM

Since 1998, California voters have approved more than $42 billion in statewide General Obligation bonds to construct or renovate public school classrooms used by the state's approximately six million K-12 students. The Budget Act includes $2.3 billion General Fund to support the debt service costs associated with these bonds. In addition to state General Obligation bonds, school districts may use developer fees, local General Obligation bonds, and Mello-Roos bonds to construct additional classrooms or renovate existing classrooms. Since 2002, local voters have approved over $114 billion in local General Obligation bonds to support their school facility needs.

The Kindergarten through Community College Public Education Facilities Bond Act of 2016 (Proposition 51)—approved by voters in November 2016—authorized $7 billion in state General Obligation bonds to support K-12 school facilities construction. These funds support new construction, modernization, retrofitting, career technical education, and charter school facility projects. The Budget continues to allocate $1.5 billion Proposition 51 bond funds to support school construction projects, which is more than double the amount allocated in fiscal year 2018-19.

Recognizing that the number of applications received by the State Allocation Board exceed available voter approved new construction and modernization bond funding, Chapter 530, Statutes of 2019 (AB 48) places a $15 billion General Obligation bond—the Public Preschool, K-12, and College Health and Safety Bond Act (Act) of 2020—on the March 3, 2020 ballot for consideration by the voters. If approved, the Act would provide $9 billion to support K-12 facilities construction, of which:

- $5.2 billion would support modernization projects, including $150 million to support lead in drinking water testing and remediation.
- $2.8 billion would support new construction projects.
- $500 million would support charter school construction projects.
- $500 million would support career technical education projects.

For more information, see the K-12 Education and Higher Education chapters.

SCHOOL FACILITIES PROGRAM REVISIONS

If the Act is approved by voters, AB 48 makes key changes to the School Facilities Program. AB 48's programmatic reforms more equitably address the changing needs of K-12 school districts and charter schools, better promote energy efficiency, address lead in drinking water, and assist school districts affected by natural disasters.

AB 48 also promotes the development of housing by bringing stability to developer fees until January 1, 2026. Specifically, the changes exempt multi-family housing developments within one-half mile from a major transit stop from level 1, 2, and 3 school developer fees and reduce school developer fees applicable to all other multi-family housing projects by 20 percent. The statutory changes also deem level 3 school developer fees inoperative until January 1, 2028. The statutory changes also increase local capacity to make needed school facility improvements by increasing local bonding capacity. In addition, AB 48 requires increased facility planning for school districts participating in the School Facilities Program.

HIGHER EDUCATION

Each year, millions of Californians pursue postsecondary degrees and certificates, enroll in courses, or participate in other kinds of education and training. The three public segments that support these educational opportunities include the University of California (UC), the California State University (CSU), and the California Community Colleges (CCCs).

UNIVERSITY OF CALIFORNIA AND CALIFORNIA STATE UNIVERSITY

The UC and CSU currently fund capital projects from within their annual support budget. This provides the universities with the flexibility to factor infrastructure development costs and priorities within their comprehensive fiscal plans. In accordance with statute, both the UC and the CSU submit annual capital outlay proposals for legislative review and Department of Finance approval. The CSU submitted capital proposals totaling $2.6 billion ($2.4 billion Statewide Revenue Bonds and $190 million campus funds). CSU continues to prioritize and refine this project list. The UC submitted capital proposals totaling $562.2 million ($551.4 million General Fund-supported financing and $10.8 million non-state resources). Final approved project lists for both CSU and UC will be submitted to the Legislature in April 2020.

If approved, the Preschool, K-12, and College Health and Safety Bond Act (Act) of 2020 would allocate $2 billion in state General Obligation bonds to support UC and Hastings College of the Law facilities projects, and $2 billion in state General Obligation bonds to support CSU facilities projects.

If the Act is approved, AB 48 requires the Regents of the UC and the Board of Trustees of the CSU to adopt five-year campus housing plans that reflect specified affordable student housing information and goals. AB 48 also requires the Regents and Trustees to consider several key inputs, including a campus's affordable student housing plan, when determining whether to request state funding for a project.

CALIFORNIA COMMUNITY COLLEGES

In 2016, voters approved approximately $2 billion in state General Obligation bonds to support the improvement and construction of community college facilities. Recently, CCCs have reported $23 billion of capital needs over the next five years.

The state's CCC facilities investments should focus on the most critical of the CCC's reported capital needs and toward projects that have appropriate local matching resources. The Budget provides $27.6 million for the CCCs to support 24 new capital outlay projects. Construction funding for continuing projects will be considered consistent with project schedule. Additionally, the Budget includes $17.3 million one-time General Fund for CCCs to address deferred maintenance.

If approved, the Preschool, K-12, and College Health and Safety Bond Act (Act) of 2020 would allocate $2 billion in state General Obligation bonds to support CCC projects.

BROADBAND FOR ALL

California has led a technological revolution defined by an unprecedented level of interconnectedness between communities and economies around the world. Nevertheless, many communities in California still lack access to affordable high-speed Internet: more than 675,000 households are not served by minimum thresholds of quality broadband.

These connectivity gaps primarily affect rural communities, low-income communities, and communities of color, exacerbating existing inequities across California communities. For working families, this can mean an inability to complete school homework, access medical treatment, search for jobs or telecommute, and engage in other essential aspects of daily life. For businesses, this means substantial—sometimes insurmountable—hurdles to taking advantage of emerging economic opportunities and building dynamic regional economies.

The state's Broadband for all strategy is composed of four principal elements: mapping the state of connectivity; investing new resources; optimizing use of existing resources; and coordinating government entities to prioritize connectivity across policies.

MAPPING THE STATE OF CONNECTIVITY

To understand the scope and nature of the challenge, the state of connectivity—whether, where, and at what speed Californians have access to affordable high-speed Internet—will be mapped. This mapping will employ a geographic information system (GIS)-based analysis using the following four available data sources:

- Census tract-level data of households without broadband access;
- Existing public and private broadband network infrastructure;
- GIS data on state-owned infrastructure and rights of way; and
- The costs of various middle- and last-mile hardware components.

The CPUC, which has led similar projects in the past, is well positioned to lead the effort to map the state's connectivity.

INVESTING NEW RESOURCES: BROADBAND IN EDUCATION

The state-sponsored K-12 High Speed Network provides local educational agencies with broadband network connectivity and Internet services, as well as videoconferencing coordination and support. The K-12 High-Speed Network also administers the Broadband Infrastructure Improvement Grant Program, which has a funding allocation of $51.4 million Proposition 98 General Fund, to improve local educational agency broadband connectivity to ensure schools can administer computer-based assessments. These efforts expand support for learning opportunities in the classroom and allow for more opportunities to expose students to computer science courses.

The California Community College's (CCC's) Integrated Technology Categorical Program annually provides $41.9 million Proposition 98 General Fund to support systemwide technology capabilities, such as systemwide broadband connectivity services, data security services, and access to statewide multimedia hosting and delivery services for colleges and districts.

In total, the state expects to provide $260.9 million over the next five years for broadband infrastructure improvements and systemwide technology investments. Of this amount, $51.4 million is allocated for K-12 purposes, and $209.5 million for CCC purposes.

OPTIMIZING USE OF EXISTING RESOURCES

Informed by GIS-based mapping, the state will review existing fund sources available for broadband adoption and activities. This review will include the California Teleconnect Fund, the California Advanced Services Fund, and federal funding opportunities to maximize the return on existing investments. In total, these funds provide approximately $900 million over the next five years that can be targeted to critical broadband activities statewide.

PRIORITIZING CONNECTIVITY ACROSS POLICIES

In addition to targeting resources to expand connectivity, the state will coordinate government entities to prioritize high-speed Internet across policies. For example, state projects that do not directly concern—but intersect with—broadband infrastructure could nonetheless be tailored to supplement and support the infrastructure. Greater coordination will unlock efficiencies across state priorities.

The California Department of Technology, which leads the California Broadband Council, will help to coordinate interagency action and convene stakeholders.

OTHER CRITICAL STATE INFRASTRUCTURE

The Plan also includes investments in capital assets that support core state functions, including state office buildings, fire protection facilities, state parks, correctional facilities, and courts, among others.

STATE OFFICE BUILDING PROGRAM

The Department of General Services (DGS) manages approximately 35.1 million square feet of space that supports a variety of state programs and functions.

The Budget includes $721.7 million lease revenue bond financing for the continuation of the Gregory Bateson Building Renovation ($183.6 million), the Jesse Unruh Building Renovation ($116.8 million), and the Resources Building Renovation projects ($421.3 million). These projects represent a continuation of the DGS Ten-Year Sequencing Plan, which provides a strategy for the renovation or replacement of state office buildings in the Sacramento region.

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

The California Department of Forestry and Fire Protection operates more than 530 facilities statewide, including 234 fire stations, 112 telecommunications facilities, 39 conservation camps, 21 unit headquarters, 16 administrative headquarters, 12 air attack bases, 10 helitack bases, 8 state forests, 1 forestry nursery, 3 training academies, and various other facilities. These facilities support fire protection, the Office of the State Fire Marshal, and resource management efforts for more than 31 million acres of state-owned and private wildlands.

The Budget includes $65.6 million ($41 million General Fund and $24.6 million lease revenue bond financing) for facility replacements, relocations, remodels, and funds to initiate the construction of barracks at three air attack bases to support the C-130 aircraft program.

DEPARTMENT OF PARKS AND RECREATION

The Department of Parks and Recreation consists of 280 parks, beaches, trails, wildlife areas, open spaces, off-highway vehicle areas, and historic sites totaling approximately 1.6 million acres of land.

The Budget includes $20 million General Fund for a conservation acquisition that would create a new state park and would immediately provide public open space and protect a unique ecosystem from private development. The vision for the park would include programs supporting equitable access. The Plan also includes $24 million General Obligation bonds for improving facilities, enhancing access in existing parks, and for opportunity acquisitions.

For more information, see the Natural Resources chapter.

DEPARTMENT OF CORRECTIONS AND REHABILITATION

The Department of Corrections and Rehabilitation (CDCR) maintains 37 youth and adult correctional facilities and 44 youth and adult camps. The Budget reflects the transfer of the youth facilities to the Health and Human Services Agency effective July 1, 2020. CDCR's aging infrastructure and changing population drive significant infrastructure needs.

The Budget includes $182.8 million ($91.7 million General Fund and $91 million lease revenue bond financing) for projects that address a variety of infrastructure needs to support CDCR's programs.

ROOF REPLACEMENT PROJECTS

Failing prison roofs have resulted in damage to electrical systems and housing units, and interruptions in rehabilitation programs, education programs, and mental health treatment.

The Budget includes $78.2 million General Fund over two years for roof replacement projects, including design funding, at Pelican Bay State Prison and California State Prison, Sacramento. This is part of a broad, multi-year plan to replace aging and deteriorating roofs across the state prison system. To date, ten institutions have received one-time funding for major roof replacement and repair projects. With funding for these 2 prisons, 15 remaining institutions are scheduled for future roof replacement and repair projects over the next 6 years.

HEALTH CARE FACILITY REPAIRS AT THE CALIFORNIA REHABILITATION CENTER

The Health Care Facility Improvement Program was implemented in 2012 to improve treatment and clinic space to provide an effective heath care delivery system at 31 adult institutions, but did not include the California Rehabilitation Center. The existing health care treatment areas there are in buildings that are 75 years old, do not have adequate storage, restrict workflow, and make it difficult to maintain inmate-patient privacy. To address this, the Budget includes $5.9 million one-time General Fund to replace damaged flooring, walls, wall-mounted air conditioning units, counters, and storage spaces in existing health care treatment areas. This project will also replace existing medication distribution windows with newer windows that are consistent with current standards and will allow for improved medication distribution. The California Rehabilitation Center is one of the older facilities in the state prison system. These upgrades are necessary to maintain this facility, which is better situated than other facilities to recruit staff, including medical professionals.

SUICIDE PREVENTION INTAKE CELL RETROFITS

In response to federal class action lawsuits, CDCR continues to invest in efforts to improve the safety of its facilities, particularly for inmates experiencing mental health crises. Since 2006, CDCR has retrofitted 473 intake cells to be suicide resistant, which includes modifying cell doors and installing ligature-resistant fixtures. However, there are an insufficient number of suicide-resistant cells available to accommodate the number of Administration Segregation Unit admissions. The Budget includes $3.8 million one-time General Fund to retrofit 64 additional intake cells across the state to provide a safer environment for inmates entering segregated housing.

JUDICIAL BRANCH

The Judicial Branch consists of the Supreme Court, courts of appeal, trial courts, and the Judicial Council. The Supreme Court is located in San Francisco and Los Angeles. The courts of appeal are organized into six districts and operate in nine different locations. The trial courts are located in 58 counties statewide, in approximately 450 facilities, and 2,100 courtrooms of approximately 16 million square feet of usable area and more than 21 million square feet of space under Judicial Council responsibility and management. The facilities of the Supreme Court, courts of appeal, and trial courts encompass not only the public courtroom spaces but also the chambers and workspaces where judicial officers and courtroom staff prepare for proceedings; secure areas, including holding cells; and building support functions.

REASSESSMENT OF TRIAL COURT CAPITAL OUTLAY PROJECTS

Chapter 45, Statutes of 2018 (SB 847) required the Judicial Council to conduct a reassessment of every trial court facility within the state and report the assessment results back to the Legislature by December 31, 2019. The Judicial Council released the results of the reassessment on December 6, 2019.

The Judicial Council approved the Reassessment of Trial Court capital outlay projects based on a prioritized needs-based and cost-based list. Overall, there are 80 projects identified through the reassessment that include both new construction and renovation projects in 41 of the 58 trial courts. The total cost of all 80 projects is estimated at $13.2 billion.

The Plan includes $2 billion for court projects, assuming approximately five projects will be initiated each year for the next five years. The Administration anticipates proposing the first of the projects this spring, focusing on the most critical projects identified in the reassessment.

MAINTAINING EXISTING INFRASTRUCTURE

Historically, due to budget reductions and other fiscal challenges, the state has not consistently funded either the cost of maintaining its new capital investments or the deferred maintenance on existing infrastructure. For example, although billions of dollars have been spent over the past decade to build state facilities, less attention has been paid to the availability of permanent funds to maintain these facilities.

Deferred maintenance is maintenance that has not been completed to keep state-owned facilities in an acceptable and operable condition, and that is intended to maintain or extend their useful life. Actions such as replacing old equipment, repainting, reroofing, repairing wiring and plumbing, dredging river or stream beds to restore original flow capacity, and repairing roads are all examples of maintenance. In contrast, capital outlay is the creation of new buildings, additions to and modifications of existing buildings, and includes projects that generally expand the capacity or change the function of state-owned properties.

At present, the reported statewide deferred maintenance need totals approximately $62 billion, as shown in the Identified Statewide Deferred Maintenance figure.

Transportation currently represents the area of the state with the highest level of deferred maintenance. Much of the state highway system was built between the 1950s and early 1970s to serve a growing economy and population. The state's population has continued to grow significantly in recent decades, resulting in a corresponding increase in vehicle miles traveled and placing additional pressure on an aging state highway system. Similarly, increased international trade, coupled with the country's dependence on the state's port system, has led to a substantial increase in trucking. As cars became more fuel efficient, revenues from excise taxes did not keep pace with the state's increasing need for highway maintenance and repairs.

Chapter 5, Statutes of 2017 (SB 1), the Road Repair and Accountability Act of 2017, was signed into law to address deteriorating road conditions by increasing funding to repair

Identified Statewide Deferred Maintenance[1/]
(Dollars in Millions)

Department of Transportation	$36,200
Department of Water Resources	12,000
University of California	6,210
Judicial Branch	2,472
Department of Corrections and Rehabilitation	1,172
Department of Parks and Recreation	1,157
Department of General Services	544
California State University	510
Department of State Hospitals	398
California Community Colleges	248
Department of Forestry and Fire Protection	148
Network of California Fairs	137
California Military Department	119
Department of Fish and Wildlife	71
Department of Veterans Affairs	66
California Highway Patrol	44
State Special Schools	44
Department of Developmental Services	25
Department of Motor Vehicles	22
Employment Development Department	18
California Exposition Park	15
Department of Food and Agriculture	10
Housing and Community Development	8
California Conservation Corps	4
Hastings College of the Law	3
Tahoe Conservancy	3
Office of Emergency Services	1
Total	**$61,649**

[1/]Represents total deferred maintenance need. Costs may be distributed between local, state, and federal entities.

the roadways, both on and off the State Highway System as well as addressing congestion, improving trade corridors, and promoting active transportation. SB 1 provides an average of nearly $2 billion in additional annual funding for the maintenance and repair of the State Highway System. This funding is being targeted toward pavement, bridge, and culvert repair while allowing the state to maintain current funding levels for safety, emergency, and other transportation elements.

The state has made progress in the last several years in reducing deferred maintenance across state government and will make more in the coming years with SB 1 investments in the state's roads and other bond investments.

DEBT FINANCING

The state has long used debt financing as a tool for infrastructure investment, similar to the private sector. When the state borrows to pay for infrastructure, roughly one out of every two dollars spent on infrastructure investments pays interest costs, rather than construction costs. The amount of funds required to service the debt has increased steadily over past years.

Budget challenges in the early 2000s resulted in a greater reliance on debt financing, rather than pay-as-you-go spending. From 1974 to 1999, California voters authorized $38.4 billion of General Obligation bonds. From 2000 to 2010, voters expanded the types of programs funded by bonds and authorized approximately $111.9 billion of General Obligation bonds. Of all previously approved bonds, debt obligations of $71.7 billion in General Obligation bonds and $8.6 billion in lease revenue bonds remain outstanding. Additionally, as of December 1, 2019, there are $32.7 billion of General Obligation and $7.2 billion of lease revenue bonds that are authorized but not yet issued. The bonds will be issued when projects are approved and ready for construction. Additional information related to General Obligation and lease revenue bond issues can be found on the Department of Finance's website.

As shown in the Debt Service on General Obligation and Lease Revenue Bonds figure, debt service on infrastructure bonds is expected to increase to $8.5 billion by 2023-24, assuming only limited new lease revenue bonds are authorized.

Debt Service on General Obligation and Lease Revenue Bonds

(Dollars in Millions)

		All Funds		General Fund	
Fiscal Year	General Fund Revenues	Debt Service	Debt Service Ratio[1/]	Debt Service	Debt Service Ratio[1/]
2018-19	$139,379	$7,942	5.70%	$5,367	3.85%
2019-20[e/]	$146,486	$7,960	5.43%	$5,210	3.56%
2020-21[e/]	$151,635	$8,230	5.43%	$5,279	3.48%
2021-22[e/]	$157,255	$8,382	5.33%	$5,699	3.62%
2022-23[e/]	$160,903	$8,247	5.13%	$5,750	3.57%
2023-24[e/]	$164,088	$8,534	5.20%	$6,050	3.69%

[1/] The debt service ratio expresses the state's debt service costs as a percentage of its General Fund revenues.

[e/] Estimated

The debt service ratio is a measure of relative indebtedness. It expresses the state's debt service level as a percentage of its General Fund revenues. The debt service ratio is projected to decline slightly through 2022-23—mainly because of higher projected revenues—to 3.57 percent, based on currently-authorized General Fund-supported General Obligation and lease revenue bond debt.

Both the bond market and bond rating agencies consider a number of factors when evaluating a state's debt position. Two measures commonly used to determine a state's debt position are debt as a percent of state personal income and debt per capita.

The ratio of a state's debt to personal income is a reflection of the state's debt compared to the state's wealth. According to the 2019 State Debt Medians Report by Moody's Investors Service, California's total outstanding debt as a percentage of personal income is 3.7 percent. Although this is well above the national average of 2.8 percent (only two of the ten most populous states—New York and Illinois—have more debt as a percentage of personal income), it is a significant decrease from the total of 5.8 percent reported in 2013 (see the Comparison of State's Debt Ratio to Other States figure).

Comparison of State's Debt Ratio to Other States

State	Percent of Personal Income						
	2013	2014	2015	2016	2017	2018	2019
National Average	3.4	3.2	3.1	3	3	2.9	2.8
California	5.8	5.3	5	4.6	4.1	3.9	3.7
(50 state rank)	(9th)	(10th)	(10th)	(11th)	(13th)	(13th)	(15th)
New York	6.3	6.0	5.7	5.5	5.2	5.2	5
Illinois	5.7	5.6	5.7	5.2	4.9	5.6	5.1
Florida	2.8	2.5	2.5	2.5	2.2	2	1.7
Pennsylvania	2.8	2.6	2.5	2.5	2.7	2.6	3
Georgia	3.0	2.9	2.8	2.7	2.4	2.4	2.3
Ohio	2.8	2.7	2.7	2.6	2.5	2.5	2.5
North Carolina	2.4	2.1	2	1.9	1.6	1.5	1.2
Texas	1.5	1.5	1	0.9	0.8	0.9	0.8
Michigan	2.2	2.1	1.9	1.8	1.6	1.5	1.4

Source: Moody's Investors Service 2019 State Debt Medians Reports.

Debt per capita measures each state resident's share of the total debt outstanding. Last year, California's per capita debt was estimated to be $2,194, well above the national average of $1,493 as reported by Moody's (see the Comparison of State's Debt Per Capita to Other States figure). California was eleventh among the states in 2019 in terms of overall debt per capita, and only two of the ten most populous states—New York and Illinois—had higher debt per capita. Similar to the debt as a percent of state personal income, the debt per capita has decreased from the total of $2,565 reported in 2013, while the national average rose slightly over the same period.

Comparison of State's Debt Per Capita to Other States

State	Debt Per Capita						
	2013	2014	2015	2016	2017	2018	2019
National Average	$1,416	$1,436	$1,419	$1,431	$1,473	$1,477	$1,493
California	$2,565	$2,465	$2,407	$2,323	$2,217	$2,188	$2,194
(50 state rank)	(7th)	(9th)	(9th)	(9th)	(9th)	(9th)	(11th)
New York	$3,174	$3,204	$3,092	$3,021	$3,070	$3,082	$3,247
Illinois	$2,526	$2,580	$2,681	$2,522	$2,511	$2,919	$2,752
Florida	$1,087	$1,008	$973	$1,038	$961	$889	$812
Pennsylvania	$1,208	$1,172	$1,117	$1,172	$1,337	$1,311	$1,577
Georgia	$1,061	$1,064	$1,043	$1,029	$992	$986	$996
Ohio	$1,047	$1,087	$1,109	$1,091	$1,087	$1,118	$1,156
North Carolina	$853	$806	$739	$721	$659	$611	$531
Texas	$580	$614	$406	$383	$383	$410	$389
Michigan	$800	$785	$758	$719	$689	$673	$630

Source: Moody's Investor Service 2019 State Debt Medians Reports.