

# MSSC - 2017



Michael Gabaldon, AECOM

- 1. DOI Water Priorities**
- 2. Trump 50**
- 3. Oroville Dam**
- 4. Governor Brown Priorities**
- 5. Water Allocations**

# 1. DOI Priorities

# FY 2017 DOI Secretarial Initiatives -- Top Priorities

- **Sustainable, Secure Water Supplies, Climate Change Resiliency**
- **Ecosystem Restoration & America's Great Outdoors**
- **Indian Water Rights Settlements**
- **Building a Landscape Level Understanding**
- **Powering our Future**
- **Engaging the Next Generation**
- **California Water**
- **Colorado River**
- **Research and Development**
- **Infrastructure**





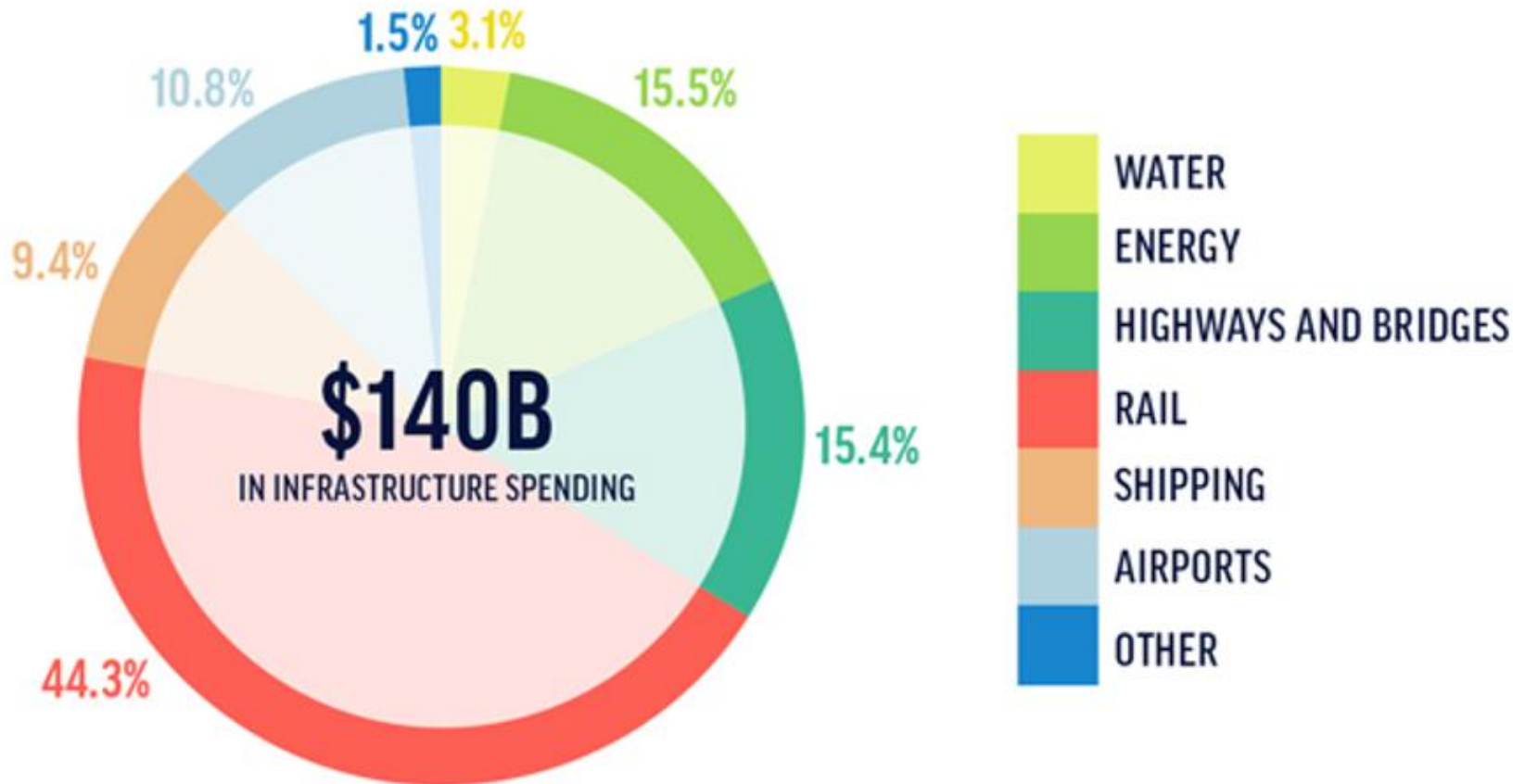
## 2. Trump 50

*Priority List*

Emergency &  
National Security  
Projects

President Trump

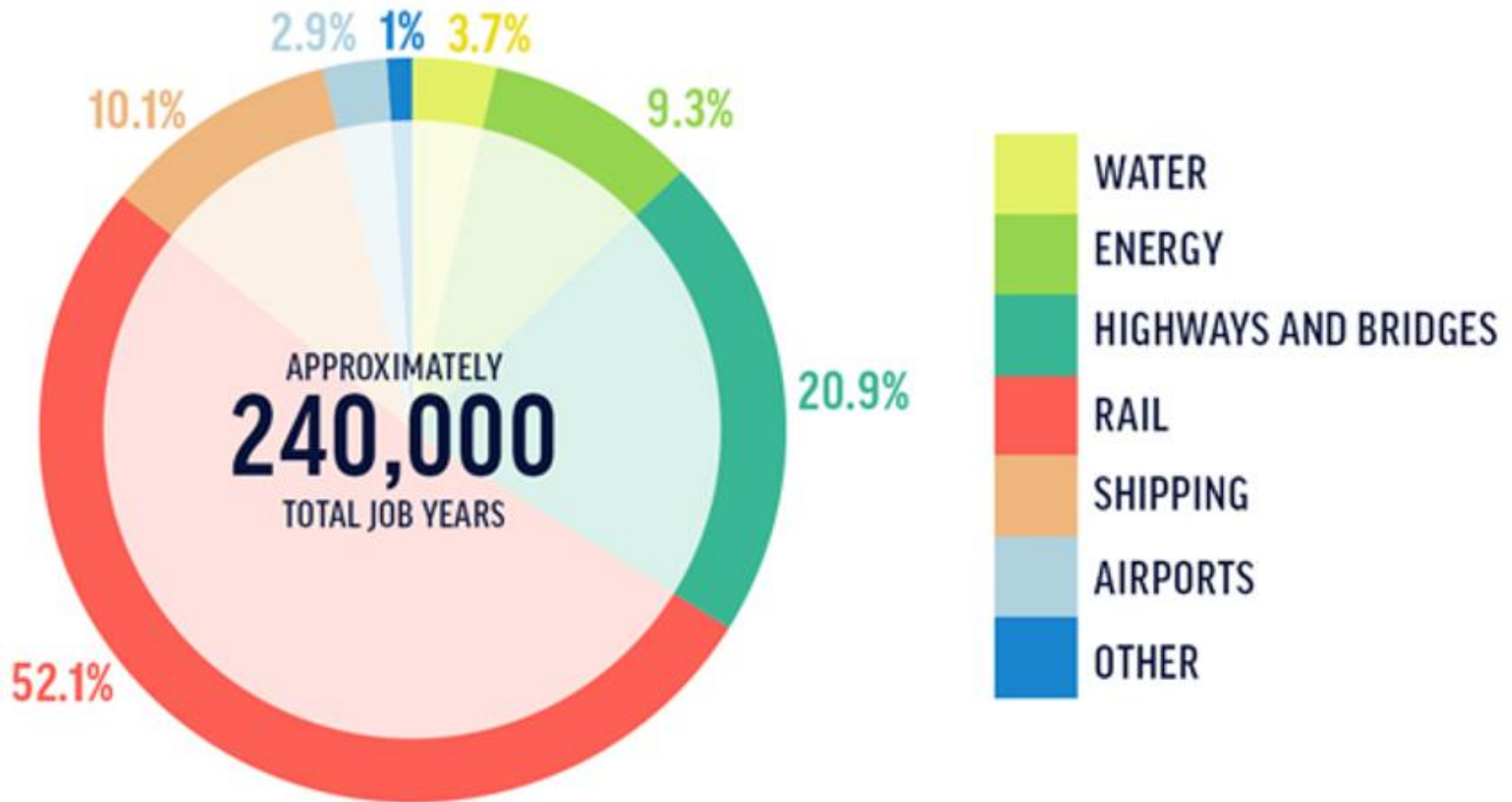
# BREAKING DOWN \$140B IN TRUMP'S INFRASTRUCTURE PRIORITIES



SOURCE: "PRIORITY LIST: EMERGENCY & NATIONAL SECURITY PROJECTS"



# JOB CREATION FROM TRUMP INFRASTRUCTURE PROJECTS



SOURCE: "PRIORITY LIST: EMERGENCY & NATIONAL SECURITY PROJECTS"





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## 12. Hydroelectric Plants operated by the U.S. Army Corps of Engineers

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1. Description: The Corps produces revenue of \$5 billion per year from hydro plants they own and operate throughout the country. These power plants are operating at 80% efficiency and the industry average is 99%. Billions of dollars of revenue are being wasted by not maximizing this opportunity. The turbines are 50 years old and replacing them will dramatically increase the production of clean energy desperately needed.

2. Authority: U.S. Army Corps of Engineers

3. Cost: **\$4 billion**

4. Jobs: 550 Direct Jobs

5. Status

1. Engineering: in progress
2. Permitting: in progress
3. Funding: seeking Federal



# 15. Cadiz Water Conveyance Project

**1. Description:** The Cadiz Valley Water Conservation, Recovery and Storage Project is designed to **capture and conserve billions of gallons** of renewable native **groundwater** flowing beneath Cadiz-controlled property in California's **Mojave Desert** that is currently being lost to evaporation and salt contamination at nearby dry lakes.

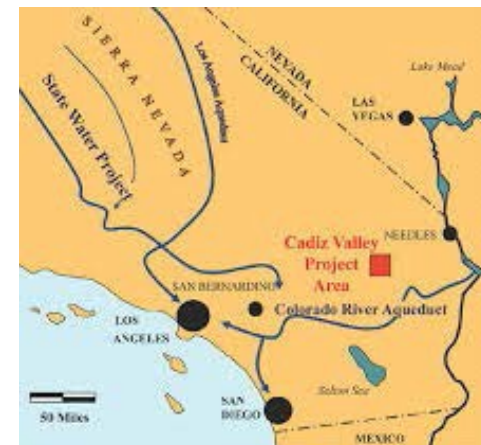
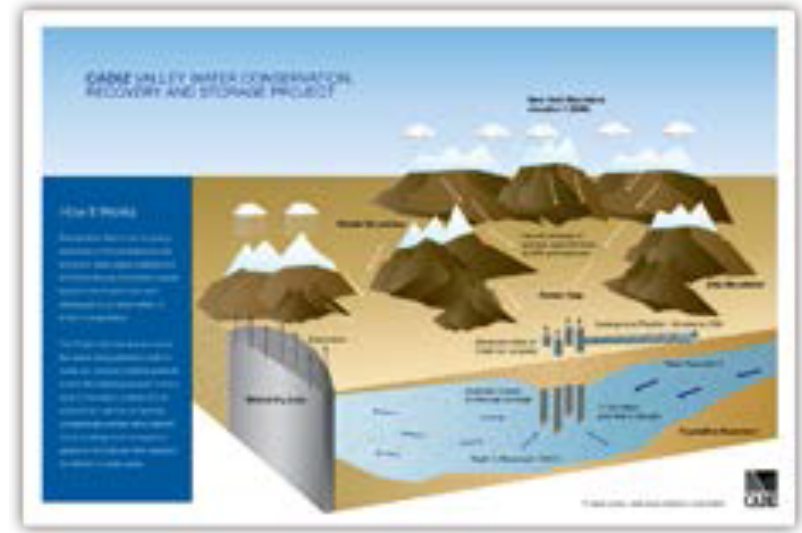
**2. Authority:** Cadiz Inc.

**3. Cost:** \$250 Million

**4. Jobs:** 5,900 direct jobs

**5. Status**

1. Engineering - done



Southern California receives about 60% of its water from the Colorado river. The proposed Cadiz Project would augment the river's water delivery via the system's current infrastructure.

# 29. Augustin Plains Ranch

1. Description: The demand for water in our state already surpasses its availability, and the situation is becoming even more dire due to extreme drought. That is why the project's supporters and sponsors are committed to developing this much-needed resource on behalf of all New Mexicans. This state-of-the-art, eco-friendly **underground storage** project will be unique, **producing its own power for operation through hydropower and solar energy**. But more importantly, the project will create a new, sustainable and abundant source of water independent of compacts with other states.

2. Authority: Augustin Plains Ranch, LLC

3. **Cost: \$600 million**

4. Jobs: 600 Direct Jobs

5. Status

1. Engineering: In progress
2. Permitting: In progress
3. Funding: In progress

Elephant Butte Reservoir 1991



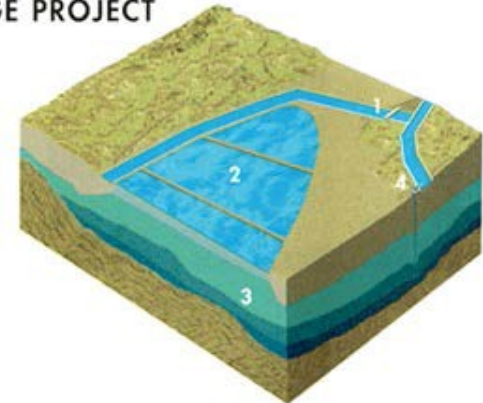
Elephant Butte Reservoir 2011



## UNDERGROUND STORAGE PROJECT

### How underground water storage works

- 1 Water is delivered by canal to recharge basins.
- 2 Water percolates through the porous sand and gravel above to the water table.
- 3 The water reaches the underground aquifer, where it is stored.
- 4 As need arises, water can be pumped out and returned to the canal for delivery.





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# 44. Huntington Beach Desalination Plant

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**1. Description:** A cost-effective, environmentally sensitive solution to provide a safe and reliable water supply to Orange County residents and has the potential to bring significant economic benefits for the city of Huntington Beach and the region

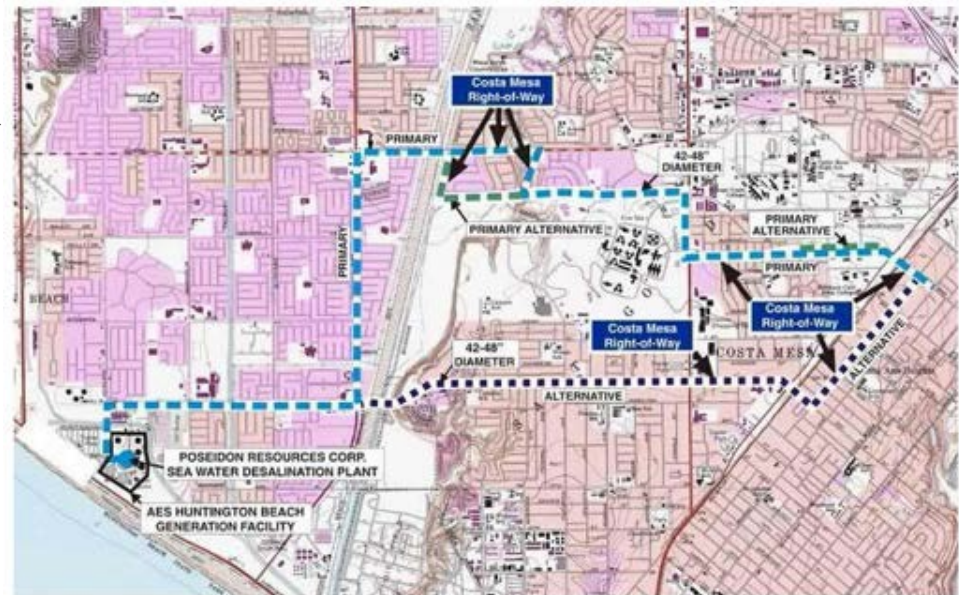
**2. Authority:** Poseidon Water

**3. Cost:** \$350 million

**4. Jobs:** 400 Direct Jobs

**5. Status**

1. Engineering: In progress
2. Permitting: In progress
3. Funding: In progress





## 3. Oroville Dam

# Chronology

- February 7 – Releases, spillway hole discovered reduced flows to 50,000 cfs
- February 11 – Emergency spillway used for first time
- February 12 – Erosion below emergency spillway
- February 12 – Flows increased through main spillway to 100,000 cfs to bring lake levels down 50 feet
- February 12 – Evacuation of 188,000 in Oroville

# Lake Oroville Spillway Repairs: General Overview February 21, 2017

Oroville Spillway Public Info Line: (530) 538-7826



**Cooperating Agencies:** Butte County Sheriff, Oroville Police Department, Butte County OES, Oroville Fire Department, Butte County Public Works, Oroville Hospital, California Highway Patrol, California State Parks, PG&E, CAL FIRE, Caltrans, Red Cross, California Conservation Corps, California National Guard, California Department of Fish and Wildlife, Bureau of Indian Affairs, CAL OES, USACE, FERC, FEMA  
**For more imagery see DWR Pixel**

**Emergency Spillway Work Area 1** DIWR continues to reinforce the Emergency Spillway and re-establish access roads, with construction crews working around the clock.

**Emergency Spillway Discharge Zone 2** This area has been inspected and continues to be monitored for any erosion. Transmission lines have been inspected and function normally.

**Flood Control Spillway Control Structure 3** Monitoring of structure continues. Operations are normal.

**Flood Control Spillway Damage Zone 4** Assessment of structure continues as flows are reduced. Plans to maintain and repair the structure will be presented as they develop.

**Thermalito Diversion Pool to Hyatt Powerplant 5** Erosion debris to be removed in order to begin operations at Hyatt Powerplant as soon as practical.

**Hyatt Powerplant/Diversion Pool Tailrace 6** Reducing the water surface elevation of the tailrace will be accomplished through the downstream debris removal process, thus allowing for Hyatt Powerplant startup.

**Monitoring Truck Traffic on Oroville Dam Roads:** Effects of vehicle travel on Oroville Dam Road and Oro Powerhouse Road are being closely monitored.

**Trails and Boat Launch Ramps:** The Brad Freeman and Dan Beebe Trails in the area around the Diversion Pool have been closed. The Spillway Boat Ramp will remain closed until further notice. For current information on launch ramps, visit the State Parks website.

**Road Blocks/Security Checkpoints:** Oroville Dam East at Glen Drive; Oroville Dam East at Canyon Drive; Dam Crest Road at Spillway Access Road; Canyon Drive at Royal Oaks Drive.



water.ca.gov

<https://cdec.water.ca.gov/reservoir.html>





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## 4. Governor Brown Priorities

# Governor Brown's four-point plan to bolster dam safety and flood protection

1. Invest **\$437 million** in near-term flood control and emergency response actions by redirecting **\$50 million** from the General Fund and requesting a **\$387 million** Proposition 1 appropriation from the **Legislature as soon as possible**.
2. Require emergency action plans and flood inundation maps for all dams.
3. Enhance California's existing dam inspection program.
4. Seek prompt regulatory action and **increased funding from the federal government** to improve dam safety.



# Proposed legislation to require the following:

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- ***Emergency Action Plans*** -Require dams to have an emergency action plan that is updated every ten years with limited exceptions for low-risk dams.
- ***Inundation Maps*** -Require all dams to have updated inundation maps every ten years, or sooner.
- ***Enforcement*** -Provide regulatory tools for the DWR to support the above requirements, ranging from monetary fines to operational restrictions for failure to comply.

# The Brown Administration also requests the following supplemental appropriations:

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- **\$6.5 million** General Fund loan to the Dam Safety Fund
- (1) **\$3 million** for the DWR's Division of Safety of Dams to **conduct more extensive evaluations of appurtenance structures**, such as spillways, gates, and outlets.
- (2) **\$3.5 million** for the DWR to **review and approve required inundation maps** and coordinate the review of emergency response plans.
- **\$1.8 million** General Fund for the Office of Emergency Services to **review and approve dam-related emergency response plans**, and coordinate with local emergency management agencies on incorporation into all-hazard emergency plans.

# Feb 24 Letter to USACE and USBR from John Laird

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**To: Assistant Secretary Darcy, Acting Commissioner Murillo, and Acting Administrator Fenton:**

**The recent spillway erosion at Oroville Dam highlights the need to strengthen and repair California's infrastructure.**

**Governor Brown has directed his administration to enhance our dam safety program, including inspection and review of ancillary structures like spillways, and accelerate investments in our flood control infrastructure.**

**Given the major role that the federal government plays in regulating and funding California dams and flood control projects, I request the following:**

## Feb 24 Letter to USACE and USBR from John Laird

- **Expand inspection and review of all federally-owned dams.** The inspections should parallel what the state is doing with its own dams, including review of ancillary structures such as spillways.
- Update the federal operating manuals for key California reservoirs. The Corps needs to be fully funded to complete these updates or allow non-federal authorities to finance this work.
- The recently enacted Water Infrastructure Improvements for the Nation Act authorizes a program for rehabilitation of high hazard dams. **Provide funding to assist California in this rehabilitation effort.**
- Over the next two years, California will spend over \$1 billion on flood control projects. It is our **hope that the federal government can help us with its appropriate share.**



# 5. Water Allocations

# Shasta Dam



# Shasta Lake Water Resources Investigation

- Releases from Shasta Lake continue at approximately **60,000 cfs**, **all but approximately 3,250 cfs of that for flood control** during what might be a record breaking volume of inflow to the Lake this water year.
- **Several million acre-feet have already been spilled**, and that total increases each day.
- It is virtually certain that **water storage expansion proponents will renew their arguments for raising Shasta Dam**.
- The Final EIS and **Final Feasibility Study were submitted to the congress in July of 2015**, with the most promising alternative the 18.5 foot raise that increases storage by 634,000 acre-feet.
- **Federal legislation** would be required to construct the raise.



## Allocations CVP

- Due to abnormally wet year, the USBR took the unusual step of issuing the allocation news in phases.
- **USBR announced a 100 percent allocation** for the Central Valley Project's Friant Division.
- The last time Friant received a 100 percent allocation was in 2011.
- **Last year**, the Friant Division water users received a **75 percent allocation**.
- In the two years before that they received **zero percent allocation**.
- USBR delayed (until mid March) the critical allocation announcement for water users north and south of the Sacramento-San Joaquin River Delta.

# Friant Dam Releases into the San Joaquin River



**Thank you...**

The image features a solid teal background. In the upper right quadrant, there are several thin, white, intersecting lines that form a series of overlapping triangles and quadrilaterals, creating a modern, abstract geometric pattern.