

## Silica Sand Mining (1920s to 1940s)

In 1922, mining for sandstone began. In Nortonville and Somersville, where coal was once mined, underground sandstone mining yielded sand for glass-making and for casting steel in foundries. While sand miners used a room-and-pillar technique similar to the method used in the coal mines, the rooms they excavated could be 30 feet tall, rather than 1½ to 4 feet tall.

In the sand mines, heavy equipment did much of the work. Pneumatic drills and dynamite replaced the coal miners' arms and picks. Boys pushing coal were replaced by massive steel slusher buckets on cables, which moved sandstone from where it fell into the cars below.



*Hazel-Atlas sand miners, circa 1930s.  
Photo courtesy of the Mrs. R. Marvin Greathouse Collection.*

Safety standards were strict. Working with rockfall hazards, dynamite, and heavy equipment required constant vigilance. The most insidious threat was in the air. Drilling and blasting sandstone creates silica dust, which can cause silicosis – a deadly lung disease that continues to affect miners around the world today.

## Mines Today (1970s to Present)

The last commercial mining operation here ceased in the late 1940s, leaving the hills riddled with dangerous mine openings. To protect park users, the East Bay Regional Park District has since secured all of the mine openings. More than a hundred years after the last coal mine was closed, the earth continues to settle and underground collapses create new mine openings. Park staff regularly conduct inspections for these openings to secure them. Park users also help with alerting park staff to new openings.



## Hazel-Atlas Mine Tours

A section of the historic Hazel-Atlas Silica Sand Mine was restored and opened to guided tours in 1977. Since then, the route has been extended many times, in stages. The last section of the ¼-mile underground route was opened to the public in 2018.

Hazel-Atlas Mine tours are offered on weekends from March through November. For more information, or to buy tickets in advance, call 888-327-2757 (888-EBPARKS) or visit [www.ebparksonline.org](http://www.ebparksonline.org). Must be age 7+ to tour the mine.

The Greathouse Visitor Center, which is located in the mine and open to all ages, is open on weekends, March through November, from 10 a.m. to 4:30 p.m.

# East Bay Regional Park District

Healthy Parks Healthy People

2950 Peralta Oaks Court, Oakland, CA 94605  
1-888-EBPARKS or 1-888-327-2757 (TRS 711)  
[ebparks.org](http://ebparks.org)

## Visitor Centers

**Ardenwood Historic Farm**, Fremont  
510-544-2797, [awvisit@ebparks.org](mailto:awvisit@ebparks.org)

**Big Break Regional Shoreline**, Oakland  
Big Break Visitor Center at the Delta  
510-544-3050, [bigbreakvisit@ebparks.org](mailto:bigbreakvisit@ebparks.org)

**Black Diamond Mines Regional Preserve**, Antioch  
510-544-2750, [bdvisit@ebparks.org](mailto:bdvisit@ebparks.org)

**Coyote Hills Regional Park**, Fremont  
510-544-3220, [chvisit@ebparks.org](mailto:chvisit@ebparks.org)

**Crown Memorial State Beach**, Alameda  
Crab Cove Visitor Center and Aquarium  
510-544-3187, [ccove@ebparks.org](mailto:ccove@ebparks.org)

**Del Valle Regional Park**, Livermore  
510-544-3146, [svisit@ebparks.org](mailto:svisit@ebparks.org)  
Open summer weekends

**Garin/Dry Creek Pioneer Regional Parks**, Hayward  
510-544-3220 (*Coyote Hills*), [chvisit@ebparks.org](mailto:chvisit@ebparks.org)  
Open summer weekends

**Sunol-Ohlone Regional Wilderness**, Sunol  
510-544-3249, [svisit@ebparks.org](mailto:svisit@ebparks.org)  
Open weekends only

**Tilden Regional Park**, Berkeley  
Botanic Garden: 510-544-3169, [bgarden@ebparks.org](mailto:bgarden@ebparks.org)  
Tilden Nature Area/Environmental Education Center  
510-544-2233, [tnarea@ebparks.org](mailto:tnarea@ebparks.org)



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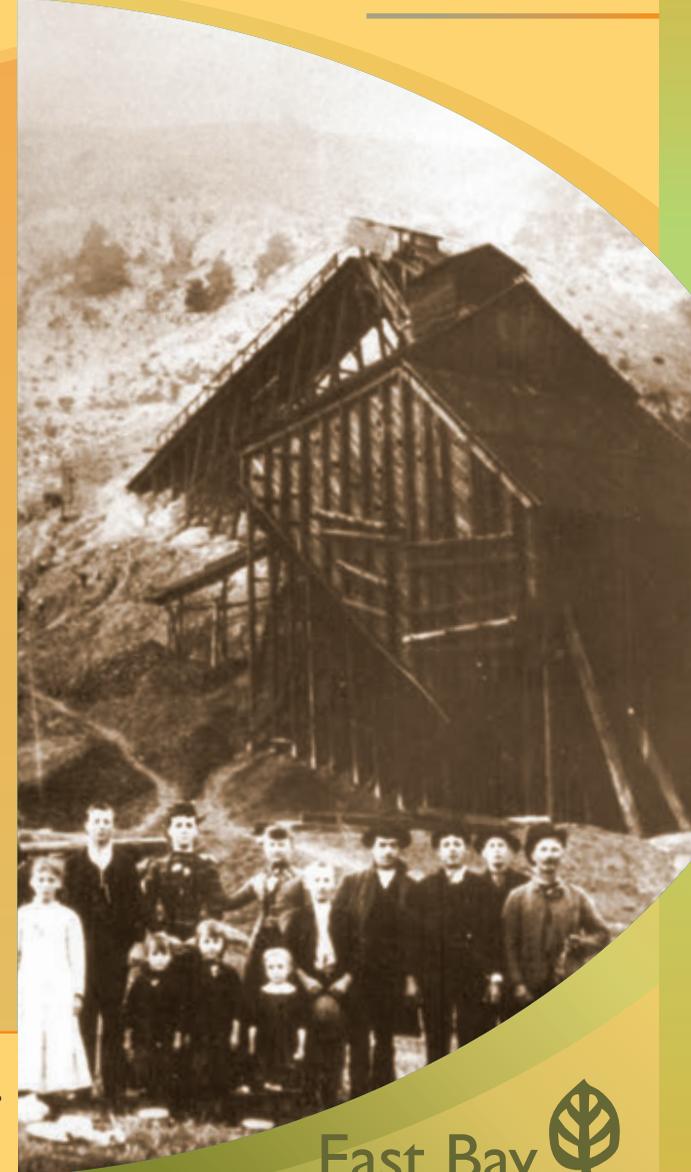
*On the cover: Coal miners' families gather  
at the Central Mine in Stewartville, circa 1882.  
Photo courtesy of the Edna Gibble Collection.*

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# Coal and Sand Mining in the Mount Diablo Foothills

## BLACK DIAMOND MINES REGIONAL PRESERVE



East Bay   
Regional Park District

Healthy Parks Healthy People

**Black Diamond Mines Regional Preserve was once the site of California's most productive coalfield and a major source of glass-making and foundry sands.**

## Mount Diablo Coalfield

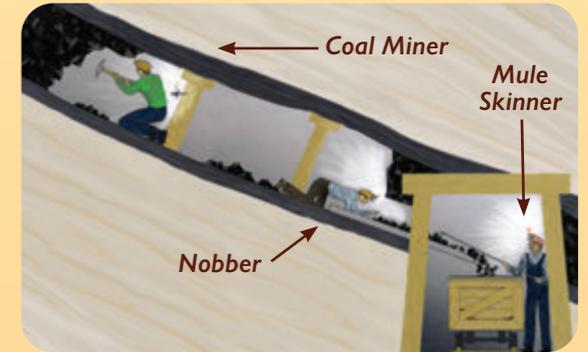
Coal mining began here in the early 1860s. The majority of the coal came from the Clark Vein and the Black Diamond Vein. Each layer of coal, called a vein or a seam, extends for miles along a 30-degree slope. Miners worked in these cramped spaces, as low as 18" high, during backbreaking 10 to 12-hour shifts. They left behind hills pierced with rooms and passageways, called shafts (when vertical), slopes (when inclined), and adits, or gangways (when horizontal).

These hills were the primary source of coal on the West Coast for decades, in an era when coal was used to heat homes, for transport, and to power manufacturing industries. Through 40 years of hard labor, miners removed 4 million tons of crumbly, low quality, lignite, and sub-bituminous coal.



## Coal Mining (1860s to 1900s)

Coal was extracted here, in the 19<sup>th</sup> century, by men and boys. A miner and a nobber (boy miner) would start from a gangway and drive an opening upward into the coal seam. The miner would install supports, and leave pillars of coal between rooms, to hold the earth above in place.



While the miner would extract coal with a pick, the nobber would push piles of coal down sheets of greased metal to a coal car. A mule Skinner (a man with a mule) would then push the car along the gangway, either through an adit to the surface, or to a slope or shaft where the car would be hoisted to the surface.

Miners worked in low rooms, as long as 600 feet, and were chronically exposed to coal dust and moisture. The flame from a miner's own candle or oil wick lamp could cause an explosion. Rockfall, deadly gases, and machinery also created persistent, often deadly, hazards.

## End of an Era

As high-quality coal was mined in Washington Territory and petroleum (oil, gasoline) became more widely available, it was no longer profitable to mine this low-quality coal and these coal mines in the foothills of Mount Diablo closed.

*Coal miners and nobbers at the Pittsburg Mine in Somersville, circa 1900.*

*Photo courtesy of the L.L. Stein Collection.*