

IN THE SUPREME COURT OF THE STATE OF NEVADA

CITY OF LAS VEGAS, A POLITICAL
SUBDIVISION OF THE STATE OF
NEVADA,

Appellant,

vs.

180 LAND CO., LLC, A NEVADA
LIMITED-LIABILITY COMPANY; AND
FORE STARS, LTD., A NEVADA LIMITED-
LIABILITY COMPANY,

Respondents.

180 LAND CO., LLC, A NEVADA
LIMITED-LIABILITY COMPANY; AND
FORE STARS, LTD., A NEVADA LIMITED-
LIABILITY COMPANY,

Appellants/Cross-Respondents,

vs.

CITY OF LAS VEGAS, A POLITICAL
SUBDIVISION OF THE STATE OF
NEVADA,

Respondent/Cross-Appellant.

No. 84345

Electronically Filed
Oct 27 2022 03:47 PM
Elizabeth A. Brown
Clerk of Supreme Court

No. 84640

**AMENDED
JOINT APPENDIX
VOLUME 114, PART 2 OF 5
(Nos. 20635–20637)**

LAW OFFICES OF KERMITT L. WATERS

Kermitt L. Waters, Esq.

Nevada Bar No. 2571

kermitt@kermittwaters.com

James J. Leavitt, Esq.

Nevada Bar No. 6032

jim@kermittwaters.com

Michael A. Schneider, Esq.

Nevada Bar No. 8887

michael@kermittwaters.com

Autumn L. Waters, Esq.

Nevada Bar No. 8917

autumn@kermittwaters.com

704 South Ninth Street

Las Vegas, Nevada 89101

Telephone: (702) 733-8877

*Attorneys for 180 Land Co., LLC and
Fore Stars, Ltd.*

LAS VEGAS CITY ATTORNEY'S OFFICE

Bryan K. Scott, Esq.

Nevada Bar No. 4381

bscott@lasvegasnevada.gov

Philip R. Byrnes, Esq.

pbyrnes@lasvegasnevada.gov

Nevada Bar No. 166

Rebecca Wolfson, Esq.

rwolfson@lasvegasnevada.gov

Nevada Bar No. 14132

495 S. Main Street, 6th Floor

Las Vegas, Nevada 89101

Telephone: (702) 229-6629

Attorneys for City of Las Vegas

CLAGGETT & SYKES LAW FIRM

Micah S. Echols, Esq.

Nevada Bar No. 8437

micah@claggettlaw.com

4101 Meadows Lane, Suite 100

Las Vegas, Nevada 89107

(702) 655-2346 – Telephone

*Attorneys for 180 Land Co., LLC and
Fore Stars, Ltd.*

McDONALD CARANO LLP

George F. Ogilvie III, Esq.

Nevada Bar No. 3552

gogilvie@mcdonaldcarano.com

Amanda C. Yen, Esq.

ayen@mcdonaldcarano.com

Nevada Bar No. 9726

Christopher Molina, Esq.

cmolina@mcdonaldcarano.com

Nevada Bar No. 14092

2300 W. Sahara Ave., Ste. 1200

Las Vegas, Nevada 89102

Telephone: (702) 873-4100

LEONARD LAW, PC

Debbie Leonard, Esq.

debbie@leonardlawpc.com

Nevada Bar No. 8260

955 S. Virginia Street Ste. 220

Reno, Nevada 89502

Telephone: (775) 964.4656

SHUTE, MIHALY & WEINBERGER, LLP

Andrew W. Schwartz, Esq.

schwartz@smwlaw.com

California Bar No. 87699

(admitted pro hac vice)

Lauren M. Tarpey, Esq.

ltarpey@smwlaw.com

California Bar No. 321775

(admitted pro hac vice)

396 Hayes Street

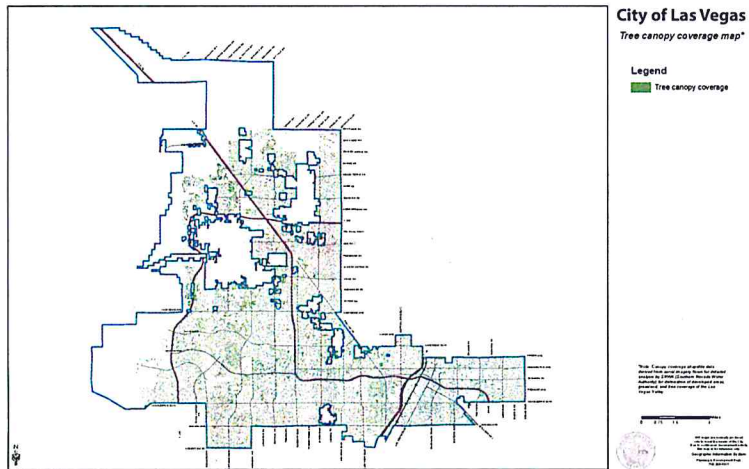
San Francisco, California 94102

Telephone: (415) 552-7272

Attorneys for City of Las Vegas

Exhibit 13

Part 2 of 2



THE MULTIPLE BENEFITS OF TREES

A healthy urban forest provides an opportunity to reduce the effects of the urban heat island effect by providing shade and improve air and stormwater quality. Effective urban forests make neighborhoods livable and create a positive aesthetic impact in addition to the benefits of mitigating urban heat islands. Not only are trees used to help provide green space for residents, they are commonly used to provide an aesthetic buffer between uses. Done well, planted trees can help mitigate unwanted or undesirable views.

Ultimately, through public and private tree planting efforts and the provision of green space, the overwhelming majority of the City's population should live within a short walk from a concentration of green infrastructure features that provide localized cooling, including park space, tree canopy cover, or vegetative surfaces.

Green infrastructure efforts must be balanced with the ambitious water reduction and conservation targets identified in this plan. Trees for buffering and green space provision are necessary, and species that offer shade, biodiversity, and other benefits should be prioritized for public and private use. These factors will help ensure a diverse plant palette that is not only heat tolerant and water efficient, but also meets a range of other criteria, including:

- Water consumption requirements
- A range of tree sizes, heights, and widths
- Maintenance and aesthetic concerns
- Tree size; the average canopy diameter for the recommended species is approximately 355 square feet
- Resistance to pests and disease
- Species diversity and stock quality
- Appropriateness for planting within property perimeters as buffers, along the street as shade trees, and within parking areas.

SNWA's Water Smart landscaping incentive program has helped reinforce appropriate tree and species selection while reducing turf and cool season grasses, non-functional turf, and application at sports and recreational fields at City parks. Codifying the recommended palette will send a clear message that appropriate species selection is vital. Opportunities for further exploration may include the development of joint tree and landscaping programs that

incentivizes the replacement of sick, dying, or non-adaptive tree and plant species with xeriscaping, water efficient, drought tolerant species that provide community benefits and increase the City's tree canopy.

URBAN FORESTS HISTORY IN LAS VEGAS

Urban forests and urban trees are performance landscape elements that serve as a valuable physical capital asset for the City. The City has been a long-time supporter of urban forestry; the first Arbor Day activities were carried out by the women of the Mesquite Club in 1912 who planted 2,000 trees. Ever since, the City:

- Has been recognized as a Tree City USA by the Arbor Day Foundation since 1989.
- Has supported urban forestry through its sustainability efforts. The City adopted an urban forestry resolution (R-26-2008) that committed the city to double the City's urban tree canopy to 20% by 2035.
- Regulates the planting of trees and shrubs pursuant to LVMC Title 13.48 and LVMC Title 19; the City's Urban Forester and Parks and Recreation Department are responsible for the City's urban forest, while the Planning Department establishes landscaping standards for residential and commercial development.

The City of Las Vegas maintains approximately 40,000 trees in public rights-of-way and at public facilities and parks. Not only do these trees help provide benefits to public property, help improve air and stormwater quality, they also help mitigate local greenhouse gas emissions.

EQUITY, URBAN HEAT ISLAND AND URBAN FORESTS

Las Vegas has the most intense urban heat islands of any city in the country, measurably higher daytime and nighttime temperatures and intensities in the urban core than in suburban areas and in the peripheral desert areas. In terms of urban heat island intensity, the City is approximately 20-25 degrees hotter than in surrounding desert areas.

Using remote sensing imagery, daytime and nighttime land surface temperatures were mapped across Southern Nevada using LANDSAT and Census data. Green infrastructure and the proximity of resident population were analyzed, including the amount of the population near

ATTY FEE MOT - 0230

protected vegetated surfaces performing localized cooling, including the tree canopy cover, artificially created water features and other permeable surfaces, and recreational areas including parks, golf courses, and greenways. Several extreme heat factors were assessed including:

- The normalized difference vegetation index, which assesses the abundance of vegetation that help mitigate the urban heat island effect through evapotranspiration by releasing absorbed heat easily, which keeps nighttime temperatures down.
- Impervious surfaces that retain heat and raise urban temperatures, especially at night.
- Vulnerability factors within each planning area. Among the key indicators are:
 - The age of the population, particularly of the elderly and children who are more susceptible to extreme heat and the associated health affects
 - Health data, including how many residents are disabled or have chronic diseases
 - Income data as a measure of the ability to afford utilities
 - Access to cooling infrastructure and other information on the building stock
- In all parts of the City, areas with large concentrations of impervious surfaces, especially parking lots, have higher temperatures and lower amounts of tree canopy.
- The hottest areas are located in the desert areas around the city followed by the urbanized areas of the valley. Concrete, asphalt, soils, and rock heat faster during the day. Because built surfaces like concrete hold heat in and release it slowly, the city doesn't cool down as fast at night
- Other forms of urban cooling and providing shade are not in wide practice in Southern Nevada. The abundance of low albedo surfaces leads to greater heat absorption. Low albedo locations with low sunlight reflectivity are found throughout all areas of the city, especially as a result of the abundance of asphalt parking lots. While green infrastructure provides the highest amount of benefits, other efforts, including the proper utilization of building materials, use of shade structures, active and passive shading, and green roofs must be further incorporated into community design.
- The impacts of extreme heat are felt disproportionately across the City. Vulnerable planning areas include those that have higher rates of poverty or homelessness, the elderly and young, and those who have preexisting medical conditions. The impacts of extreme heat are concentrated in areas with lower incomes and have higher rates of African American and Latino neighborhoods, especially those located within West Las Vegas, Charleston, and East Las Vegas. These areas are underserved by green infrastructure and community centers and facilities that serve as cooling stations that serve as a respite from extreme heat.

These factors contribute to a community's overall vulnerability to extreme heat caused by the urban heat island. The results reveal:

- Vegetated surfaces only account for 30% of the City's total area, while the tree canopy accounts for approximately 13%, much of it coming from trees in residential areas.
- Tree canopy coverage is typically highest in suburban planning areas like Summerlin and Centennial Hills. Conversely, canopy coverage is lowest in the inner ring suburbs around Downtown Las Vegas. Some notable exceptions include the neighborhoods immediately around the Springs Preserve, golf courses, Lorenzi Park, and Freedom Park. Much of East Las Vegas, the Historic Westside, and Downtown have older tree canopies with large trees that are slowly being lost to disease, replacement, or stress.

THE CITY MUST REVERSE THE TREND OF WAIVING TREE AND LANDSCAPING REQUIREMENTS

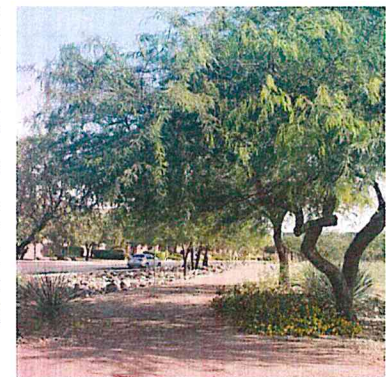
The City must evaluate other proactive measures including a regulatory approach to reduce the amount of impervious surfaces and parking lots. Designing places to mitigate extreme heat impacts will require more innovative approaches.

Based on Planning Department data beginning in 2002, a significant amount of development projects have requested waivers, and exceptions from LVMC Title 19 tree and landscaping standards. During the site development

review process, requests may be necessitated for a specific project. While a single project may eliminate a handful of required trees, the cumulative sum of all trees has led to a substantial loss of the urban forest; between 2006-2015, more than 2400 waivers and exceptions were requested leading to the loss of 6,750 trees and more than 27,000 shrubs. During this period, both Planning Commission and City Council approved these requests to deviate from standards at a rate of more than 74% of the time despite staff recommendation of denial.

The difference between urban and suburban community design and green space availability is age, for which newer standards may apply; Parking areas are especially prevalent in suburban planning areas of Las Vegas, LVMC Title 19 provides requirements for shading that are intended to provide both a perimeter buffer as well as aesthetic enhancement. Some areas, including Downtown Las Vegas, have higher rates of impervious surfaces that serve as a heat sink that raises ambient air temperatures. Likewise, suburban planning areas also tend to have higher, albeit less concentrated heat sinks, with asphalt and dark rooftops concentrations as high as 70% of total area. Addressing heat islands must also recognize that asphalt parking lots are "placeholders" for future mixed-use infill development. Eliminating these existing asphalt and concrete areas, by retrofitting commercial corridors will begin to change the mix of surfaces. New tree canopy and landscaping associated with each mixed-use infill site coupled with changes to landscaping, paving, and building shade standards will also ensure a reversal in the trend of lost landscaping. The loss of trees and landscaping as a result of waiver requests can be addressed in the following ways:

- Applicant education on the importance of trees and their necessity in every project as a means of reducing the urban heat island effect
- Staff education to identify vegetation, building materials, and other methods to increase shade
- City Council and Planning Commission education to ensure high quality projects meeting standards are approved and those that are not are better scrutinized.
- An evaluation of standards for exceptions and waivers, including the development of policies to ensure that if landscaping is not planted as a part of a project, landscaping will be contributed to another portion of the area of the city.



ATTY FEE MOT - 0231

20637