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EXECUTIVE SUMMARY

The Southern Nevada Water Authority (SNWA) has a history of seeking public input through citizens advisory committees to evaluate major organizational initiatives.

In June 2021, the Nevada Legislature enacted Assembly Bill (AB) 356, which directed the SNWA Board of Directors to develop a plan for the removal of nonfunctional turf in the Las Vegas Valley. The Legislature also created the Nonfunctional Turf Removal Advisory Committee to be appointed by the SNWA Board of Directors to help the SNWA develop its plan for removal of nonfunctional turf. The committee was comprised of the following nine voting members, representing office parks, businesses, industrial or commercial facilities, golf courses, common-interest communities (x2), multi-family housing facilities, environmental organizations, and local governments:

- Mauricia Baca
  Environmental Organization
- Scott Black
  Local Government
- Stephanie Bressler
  Multifamily Housing
- Thomas Burns
  Business
- Tena Cameron
  Office Park
- Larry Fossan
  Common-interest Community
- Dale Hahn
  Golf Course
- David Strickland
  Industrial/Commercial
- Brian Walsh
  Common-interest Community

From August 2021 to November 2021, the committee met four times to formulate recommendations to the SNWA Board of Directors on defining “functional turf” and “nonfunctional turf,” and outlining a process for waivers to the nonfunctional turf removal requirements.

This report summarizes the activities and results of the committee process. Section I is an overview of the issue and AB 356, Section II reviews the NTRAC scope and discussion topics, and Section III summarizes the committee’s recommendations.
I. OVERVIEW OF ISSUE AND AB 356

Southern Nevada relies on the Colorado River for 90 percent of its water supply. The Colorado River system is facing the worst drought in the river basin’s recorded history. The water level of Lake Mead, which serves as one of the river’s primary water storage reservoirs, has dropped approximately 130 feet since January 2000.

Because of low water levels at Lake Mead, the federal government issued a water shortage declaration on the Colorado River, reducing the amount of water Southern Nevada can withdraw from Lake Mead beginning in January 2022. Combined with existing voluntary contributions outlined in the Drought Contingency Plan, the declared shortage will cut Southern Nevada’s annual water allocation by nearly 7 billion gallons in 2022, which equates to enough water to serve more than 40,000 households for a year. Should Lake Mead’s water level continue to decline, additional cuts will follow.

For 20 years, the Southern Nevada Water Authority (SNWA) has been taking proactive actions to respond to the drought and prepare for potential water cuts. The SNWA’s Water Resource Plan details how it plans to meet the community’s water needs, both in the short term and for the next half-century, including reducing outdoor water demands.

Nearly all the water Southern Nevada uses indoors is recycled. However, water used outside evaporates and cannot be recycled. Approximately 60 percent of Southern Nevada's water is used outdoors. For this reason, the Authority’s conservation rebates and programs focus on reducing water use outdoors.

Nonfunctional turf provides no recreational value, is largely decorative, or not safe to access and use. It is found throughout Southern Nevada, within business complexes and neighborhoods, schools, parks, government facilities, along community streets, and in traffic circles and medians.

The unused grass in Southern Nevada soaks up about 12 billion gallons of water every year; the equivalent of more than 10 percent of Nevada’s entire allocation of water from the Colorado River.

In June 2021, the Nevada Legislature enacted AB 356, which directed the SNWA Board of Directors to develop a plan for the removal of nonfunctional turf in the Las Vegas Valley. The legislation prohibits the use of Colorado River water to irrigate the nearly 4,000 acres of nonfunctional turf on properties that are not zoned exclusively for single-family residences after January 1, 2027.

The Legislature also created the Nonfunctional Turf Removal Advisory Committee to help the SNWA define functional and nonfunctional turf. In July 2021, the SNWA Board of Directors appointed nine individuals representing commercial and industrial properties, homeowners’ associations, golf courses, multifamily properties, environmental interests and municipalities to the Nonfunctional Turf Advisory Committee.
II. COMMITTEE SCOPE AND DISCUSSION

When the Nevada Legislature passed AB 356, creating the Nonfunctional Functional Turf Removal Advisory Committee (NTRAC), it outlined the committee’s responsibilities, which include discussing issues related to the use and removal of nonfunctional turf by each water use sector and providing written recommendations to the SNWA Board of Directors regarding the plan to remove nonfunctional turf in Southern Nevada. The bill also provided for a waiver process, but it did not define the process.

From August 2021 to November 2021, the committee met four times to formulate recommendations to the SNWA Board of Directors on defining “functional turf” and “nonfunctional turf,” and outlining a process for waivers to the nonfunctional turf removal requirements.

Beginning with its first meeting, NTRAC heard from SNWA staff regarding the water challenges facing the community, including the unprecedented drought in the Colorado River basin. Additionally, NTRAC reviewed the Authority’s conservation programs.

Since 2002, Southern Nevada has made considerable conservation gains; however, conservation progress has stalled in recent years. With the need for additional conservation, a previous citizens advisory committee recommended several conservation-related initiatives, including efforts to reduce existing nonfunctional turf in the valley.

Most of the nonfunctional turf in Southern Nevada (approximately 3,900 acres) exists in non-single family residential sectors:

By removing this nonfunctional turf, Southern Nevada can save about 9.5 billion gallons or 29,150 acre-feet of water per year.
FUNCTIONAL VS. NONFUNCTIONAL TURF

Over the next meetings, NTRAC focused on defining functional and nonfunctional turf to address the existing nonfunctional turf installations in Southern Nevada. In July 2019, the SNWA Board approved the SNWA’s Nonfunctional Turf Resolution, which established parameters for new installations of turf, ensuring that it is accessible, provides recreational value and can be watered efficiently. More specifically, the resolution limited new grass installations to programmed recreational areas at parks and schools, ensured new grass installations were large enough to provide meaningful active recreation, ensured safety and access, and limited slopes to prevent inefficient watering practices.

While municipal development codes in Southern Nevada have been updated to reflect these requirements, the committee discussed how nonfunctional turf exists within existing major sectors, such as commercial, multifamily, municipal, public services, religious institutions, and common-interest communities. The committee considered how some of the Nonfunctional Turf Resolution’s principles could be incorporated into the definitions of functional and nonfunctional turf and applied through different sectors. The results of the committee’s discussions are defined within the “recommendations” section of this report.

WAIVERS

While AB 356 provided for a waiver process, it did not define the process. The committee discussed the need for a waiver process since some nonfunctional turf applications might substantially conform with the functional turf definition or provide a recreational benefit to the community despite their sector application. The committee discussed the application, review and appeal processes. The results of the committee’s discussions are defined within the “recommendations” section of this report.

SUMMARY

At the committee’s October meeting, it finalized a set of sample definitions for functional and nonfunctional turf by sector. The committee also discussed the details of a waiver process. Following the meeting, a draft recommendations report was compiled by staff and provided to the committee. At the November 17, 2021 meeting, the committee approved its final recommendations and recommendations report.
III. RECOMMENDATIONS

After evaluation of the issue of nonfunctional turf in Southern Nevada, the committee reached consensus on the following recommendations, which will be transmitted to the SNWA Board of Directors for consideration and approval:

1. **Define Nonfunctional Turf as:**

   “Nonfunctional Turf” means irrigated lawn grass area not meeting the below definition of Functional Turf, including without limitation, such areas in the following locations:
   - **Streetscape Turf:** Except as otherwise specified, turf located along public or private streets, streetscape sidewalks, driveways and parking lots, including but not limited to turf within community, park and business streetscape frontage areas, medians and roundabouts.
   - **Frontage, Courtyard, Interior and Building Adjacent Turf:** Turf in front of, between, behind or otherwise adjacent to a building or buildings located on a property not zoned exclusively as a single-family residence, including but not limited to maintenance areas and common areas.
   - **Certain HOA-Managed Landscape Areas:** Turf managed by a homeowner association that does not provide a recreational benefit to the community or that otherwise does not qualify as Functional Turf, regardless of the property zoning.

2. **Define Functional Turf as:**

   “Functional Turf” means an irrigated lawn grass area that provides a recreational benefit to the community and is:

   (a) located at least 10 feet from a street (except as otherwise specified), installed on slopes less than 25 percent, and not installed within street medians, along streetscapes or at the front of entryways to parks, commercial sites, neighborhoods or subdivisions; and

   (b) **Active/Programmed Recreation Turf, Athletic Field Turf, Designated Use Area Turf, Golf Course Play Turf, Pet Relief Turf, Playground Turf or Resident Area Turf,** as these terms are further defined and qualified below.

   “**Active/Programmed Recreation Turf**” means irrigated lawn grass in an active/programmed recreation area on homeowner association-owned or managed property or at a public park or water park (excluding park streetscape and community frontage areas).

   Active/programmed recreation turf at existing properties must be:
   - 1,500 contiguous square feet or greater
   - Co-located with facilities, including but not limited to trash bins, benches, tables, walking paths and/or other recreational amenities
   - Located at least 10 feet from a public or private street or interior facing parking lot unless:
     - The contiguous turf area is at least 30 feet in all dimensions; or
     - The turf is immediately adjacent to an athletic field
“Athletic Field Turf” means irrigated lawn grass used as a programmed sports field or for physical education and intermural use that is 1,500 contiguous square feet or greater, not less than 30 feet in any dimension, and located at a school, daycare, youth recreation center, senior center, public park, private park, water park or religious institution. Athletic Field Turf may be located less than 10 feet from a public or private street or interior-facing parking lot if the contiguous turf area is at least 30 feet in all dimensions.

“Designated Use Area Turf” means irrigated lawn grass designated for special use at cemeteries and mortuaries.

“Golf Course Play Turf” means irrigated lawn grass at a golf course in driving ranges, chipping and putting greens, tee boxes, greens, fairways and rough.

“Pet Relief Turf” means irrigated lawn grass at a property providing commercial and retail services for pets that is designated for pet use (such as veterinarians or boarding facilities). Pet Relief Turf may not exceed 200 square feet.

“Playground Turf” means irrigated lawn grass in designated play areas with playground amenities, including but not limited to slides, swings and climbing structures on homeowner association-owned or managed property or at a public park, water park, school, daycare, youth recreation center, senior center or religious institution. Playground Turf may be located less than 10 feet from a public or private street if fenced.

“Resident Area Turf” means up to 150 square feet of irrigated lawn grass per dwelling unit at multi-family residential properties, single-family attached properties, commercial/multi-family mixed use properties, extended stay hotels/motels, or assisted living and rehabilitation centers used by tenants for recreation and leisure. Resident Area Turf must be in areas reasonably accessible for active use by residents and therefore may not be located in streetscape frontages, parking lots, roundabouts, medians, driveways and other non-accessible or exclusive-use areas such as commercial courtyards.

3. Establish a waiver process for non-single family residential properties for turf that is not permitted under the current definitions.

Any establishment can apply for a waiver. Waiver applicants must demonstrate that the turf substantially complies with the Functional Turf definition as indicated by conditions, such as activity type, activity appropriate dimensions, number of persons served, frequency of use, location in proximity to similar turf areas, public access, presence of facilities and/or other recreational amenities, and irrigation efficiency.

The process should also include an opportunity for an applicant to appeal staff decisions to the Authority’s General Manager and the SNWA Board of Directors.

The following quick reference table summarizes irrigated turf areas by sector that may be considered functional per the definitions. The turf areas that are not identified as being functional may be considered for a waiver upon application.
4. **Reconvene the Nonfunctional Turf Removal Advisory Committee as needed to discuss other issues pertaining to the implementation of AB 356.**

The committee noted the potential for budgetary and timeline challenges for some establishments to remove large areas of nonfunctional turf. As staff monitors the community’s progress in removing nonfunctional turf, NTRAC should be reconvened in the future to address implementation issues.

5. **Conduct outreach activities with non-single-family residential property owners and managers to support implementation of AB 356.**

The committee recommends that staff conduct extensive outreach activities to support the implementation of AB 356, including marketing efforts, online tools, and staff site evaluations.
PUBLIC COMMENT
Maryann Goodsell, a representative from the Peccole Ranch Homeowners Association (HOA), asked if definitions will be addressed during the committee process. She also stated that the paseos are a greenbelt area controlled by flood channels and asked if considerations will be made to accommodate unique properties such as the Paseos. John Entsminger, General Manager, noted that one of the committee’s main charges will be to define nonfunctional turf. He added that he couldn’t presuppose where future committee discussions will lead, but informed Ms. Goodsell that the meetings are also being streamed on the internet and invited her to monitor them to see how discussions progress.

SUMMARY OF ACTIVITIES
The Southern Nevada Water Authority’s (Authority) Nonfunctional Turf Removal Advisory Committee (NTRAC) met on Wednesday, August 18, 2021. The meeting began at 3 p.m.

#1 Approve agenda.
Scott Black moved to approve the meeting agenda. The agenda was approved.

#2 Welcome and introductions.
Mr. Entsminger introduced himself and staff. Committee introductions were made.

#3 Receive an overview of Nevada’s Open Meeting Law.
Tabitha Simmons, Director of Legal Services, provided an overview of Nevada Open Meeting Law, which ensures that decisions affecting the public are made through transparent, public processes. She noted the main components of the law, including posting procedures, public comment, conducting activities in the public, and quorums.

#4 Receive an overview of the SNWA’s background and Colorado River Basin drought status.
Colby Pellegrino, Deputy General Manager of Resources, provided an overview of the Authority and its core responsibilities, which include water resource planning, infrastructure, conservation, water quality and stewardship. Ms. Pellegrino also provided information on Southern Nevada’s reliability on the
Colorado River, drought and climate change impacts, current and projected Lake Mead water elevations, banked water resources and return-flow credits. She also talked about the recent federally mandated water shortage declaration and the probability of future shortages if Lake Mead water levels continue to decline.

**#5 Receive an overview of SNWA’s conservation initiatives.**
Ms. Pellegrino provided a history of the Authority’s water conservation and drought response efforts since 2002, which include:

- Drought planning
- Landscape development codes
- Golf course water budgets
- Mandatory watering schedules
- Water waste enforcement
- Tiered water rates
- Incentive and rebate programs
- Evaporative cooling studies

She stated these initiatives have resulted in significant water savings over the past 20 years, but progress has stalled.

Ms. Pellegrino also provided information on additional actions that the Authority has taken to protect the community’s water supply. These include the construction of a third intake and pumping station at Lake Mead; banked water resources in Arizona, California and Nevada; and a 50-year water resource plan.

Ms. Pellegrino then talked about the recommendations made by the Integrated Resources Planning Advisory Committee in 2020, one of which was the reduction of existing nonfunctional turf throughout Southern Nevada. She explained that there are currently 5,000 acres of nonfunctional turf throughout the community that, if removed, would save approximately 12 billion gallons of water annually. She then provided information on the Nevada Assembly Bill 356 (AB) legislation, which prohibits the use of Colorado River water for unused grass and calls for the formation of this committee.

**#6 Receive and overview of the committee process and administrative items relating to the committee.**
Zane Marshall, Director of Water Resources, reviewed the scope of the NTRAC. He reminded the committee that recommendations are made on a consensus basis and do not require unanimous agreement, and that the goal of the committee is to make mutually beneficial recommendations regarding non-functional turf removal to present to the SNWA Board of Directors. He also reviewed committee member and SNWA commitments as well as future meeting dates.

David Strickland asked whether the committee will be generating language or examples of nonfunctional turf. Mr. Marshall responded that the goal is to develop definitions that can be used broadly throughout the community, which will inform recommendations for the SNWA Board’s consideration.

Tena Cameron asked if the committee will be developing a recommendation on a process for waivers. Mr. Marshall confirmed that it will.

Brian Walsh asked how a committee member can introduce a topic to be discussed at a future meeting. Mr. Entsminger responded that committee members can make topics known to staff ahead of time, so that they can be included on the agenda for discussion, per Nevada Open Meeting Law. Mr. Walsh noted that a review of AB 356 would be helpful in understanding the committee’s charges.
Stephanie Bressler asked if the committee will be able to make recommendations to change existing programs and incentives. Mr. Entsminger responded that this committee has a narrow charge to comply with the legislation that appointed the committee. He added that feedback outside the scope of committee discussion can be recorded by staff for future consideration.

PUBLIC COMMENT
John Musik complimented the work the Authority has done over the years, specifically the information provided in various reports that have been generated by staff. He asked if committee meeting materials will be made available to the public and if a “data room” will be provided for the public to retrieve Authority reports or make recommendations on specific topics. Mr. Entsminger responded that NTRAC meetings will be broadcast and that all materials will be available to the public. He added that materials or comments can be made available to the committee members. Ms. Pellegrino added that the Authority’s Water Resource Plan and Water Conservation plan are both available at snwa.com.

Lisa Parry asked how members of the public can submit ideas and comments, especially pertaining to unique neighborhoods. Katie Horn, Management Service Manager, responded that members of the public can send comments to publiccomment@snwa.com.

Leslie Weller asked if backyards can be grandfathered in under the current requirement of no more than 50 percent of grass allowed in backyards. She also asked if the seasonal watering schedule can be made mandatory. Mr. Entsminger responded that the development codes limiting backyards to 50 percent grass was put in place in 2002, so it is effective for homes constructed after that date. He added that the seasonal water schedules are mandatory and that people are breaking law by not abiding by them.

ADJOURNMENT
The meeting was adjourned at 4:23 p.m.
NONFUNCTIONAL TURF REMOVAL ADVISORY COMMITTEE
MEETING SUMMARY

September 22, 2021, 3:00 p.m.

Colorado River Conference Rooms, Southern Nevada Water Authority
100 City Parkway, 7th Floor, Las Vegas, Nevada

NTRAC members present:  David Strickland  Tena Cameron
                         Larry Fossan            Scott Black
                         Brian Walsh             Mauricia Baca
                         Dale Hahn               

NTRAC members absent:  Stephanie Bressler  Tom Burns
                      
Staff present:        Colby Pellegrino  Zane Marshall
                      Tabitha Simmons         Katie Horn
                      Mitch Bishop           

PUBLIC COMMENT
There were no members from the public wishing to speak.

SUMMARY OF ACTIVITIES
The Southern Nevada Water Authority's (Authority) Nonfunctional Turf Removal Advisory Committee (NTRAC) met on Wednesday, September 22, 2021. The meeting began at 3:00 p.m.

#1 Approve agenda and minutes from the August 18, 2021 meeting.
Scott Black moved to approve the meeting agenda and the minutes from the August 18, 2021 meeting. The motion was approved.

#2 Receive a presentation on Assembly Bill 356 and the Nonfunctional Turf Removal Advisory Committee. Colby Pellegrino, Deputy General Manager of Resources, provided an overview of Assembly Bill 356 that was signed into law by Governor Sisolak in June 2021. This law states that on and after January 1, 2027, the waters of the Colorado River distributed by the Authority or one of the member agencies of the Authority may not be used to irrigate nonfunctional turf on any property that is not zoned exclusively for a single-family residence. She stated that the bill also set forth a number actions and responsibilities to the Authority board which are to define “functional turf” and “nonfunctional turf” and promulgate the definitions in the service rules of member agencies of the Authority may not be used to irrigate nonfunctional turf on any property that is not zoned exclusively for a single-family residence. She stated that the bill also set forth a number actions and responsibilities to the Authority board which are to define “functional turf” and “nonfunctional turf” and promulgate the definitions in the service rules of member agencies, and to develop a plan to identify and facilitate the removal of nonfunctional turf that establishes phases for the removal of it, based on categories of water users, and establishes deadlines for removing it. Ms. Pellegrino also stated that the bill established the NTRAC, outlined its responsibilities, and put forth provisions related to turf removal. This also includes an undefined waiver or extension process. She also discussed the differences between NTRAC’s responsibilities and the Authority’s other conservation-related programs. She concluded by giving an overview of the NTRAC process and next steps.

#3 Receive a presentation on functional and nonfunctional turf in Southern Nevada.
Ms. Pellegrino gave background information on Southern Nevada’s growth in the 1980s and 1990s and how the drought, which began in the early 2000s, forced the community to rethink its growth and
development, specifically as it related to water efficient principles. In 2004, turf restrictions were put into municipal codes and limited turf in both residential and commercial applications, and while those new codes helped, existing unusable turf remained from prior development. Because of this, the Authority focused its efforts on incentivizing the removal of unused turf. Ms. Pellegrino discussed the turf removal rebate increases throughout the years and how they impacted conservation program participation. She stated that Southern Nevada needs to continue to make progress in removing unused turf since water usage is increasing and drought conditions continue, adding that incentives are no longer effective and thus the need for AB356. Dale Hahn asked what year the Water Smart Landscape easement began, to which Ms. Pellegrino responded that the Authority began placing easements in 2009 on properties that participated in its conservation programs.

Ms. Pellegrino discussed how nonfunctional turf is handled in the community for new development, highlighted the following conditions and gave specific examples of each:
- The installation of turf on public and private parks and schools is limited to active or programmed recreation areas such as sport fields
- Turf should not be installed in areas less than 1,500 contiguous square feet
- Turf cannot be less than 30 feet in any dimension
- Turf cannot be installed closer than 10 feet to a street
- Turf cannot be installed in front of entryways to residential neighborhoods or subdivisions where other recreational amenities do not exist
- The maximum slope of a turf area will not exceed 25 percent and turf areas should be graded to prevent runoff, except in designated drainage areas

She stated that most of the grass that exists today would not be installed under today’s codes and that NTRAC will develop recommendations to implement AB356 in a three-part process: 1) consider and develop definitions by sector (commercial, multifamily, municipal, public services, churches, HOAs, etc.); 2) waivers; and 3) reviewing the plan and recommendations.

#4 Discuss defining functional and nonfunctional turf.
Zane Marshall, Director of Resources, led the discussion on defining functional and nonfunctional turf. He began by defining what the Authority considers as functional turf, which includes the following:
- Used on a near daily basis
- People are actively using it for recreation (not walking through it)
- Safe and easy to access
- Large enough to irrigate efficiently
- Offers multipurpose use (sport fields excluded)
- Adjacent to other amenities (benches, restrooms, shade)

Mr. Marshall then defined what the Authority considers as nonfunctional turf, which includes the following:
- Not being used in a recreational application
- Too small to offer meaningful benefit
- Located adjacent to streets or thoroughfares that affect its use
- Located in areas difficult to access or limited access
- Difficult to irrigate efficiently (sloped, oddly shaped)
- Without nearby amenities
Larry Fossan asked about dog walking areas and if current areas would need to be modified to meet the standards and definitions set forth by the committee. Mr. Marshall confirmed that is correct. Ms. Pellegrino added that there will be a waiver process, but the goal is to be uniform and consistent. Tena Cameron asked if there will be an extension waiver for those who need more than the five years to remove turf. Ms. Pellegrino responded that the legislation states that nonfunctional turf cannot be irrigated after 2027; so, while there may be extensions, it will be easier and more cost effective to do it early and altogether rather than waiting or phasing it.

Tabitha Simmons, Director of Legal Services, discussed some goals for the committee to help create a regulatory framework in drafting definitions. These goals include consistency in the application of the law, clear definitions that can be applied uniformly and objectively, and thorough definitions that inform whether turf will or will not be permitted under the law.

Mr. Marshall continued the definition discussion by giving several sample definitions and citing specific examples. He highlighted the following functional turf types:

- **Active/Programmed Recreation Turf** means irrigated lawn grass in an active/programmed recreation area on homeowner association-owned or managed property or at a public park or water park (excluding park streetscape and community frontage areas).
- **Athletic Field Turf** means irrigated lawn grass used as a programmed sports field or for physical education and intermural use that is 1,500 contiguous square feet or greater, not less than 30 feet in any dimension, and located at a school, daycare, youth recreation center, senior center, public park, private park, water park or religious institution.
- **Designated Use Area Turf** means irrigated lawn grass designated for special use at cemeteries and mortuaries.
- **Golf Course Play Turf** means irrigated lawn grass at a golf course in driving ranges, chipping and putting greens, tee boxes, greens, fairways and rough.
- **Pet Relief Turf** means irrigated lawn grass in a property providing commercial and retail services for pets that is designated for pet use (such as veterinarians or boarding facilities); may not exceed 200 square feet.
- **Playground Turf** means irrigated lawn grass in designated play areas with playground amenities, including but not limited to slides, swings and climbing structures on homeowner association-owned or managed property or at a public park, water park, school, daycare, youth recreation center, senior center or religious institution.
- **Resident Area Turf** means up to 150 square feet of irrigated lawn grass per dwelling unit at multi-family residential properties or assisted living and rehabilitation centers used by tenants for recreation and leisure.

Mauricia Baca spoke about existing properties and their ability to establish the use of turf as functional. Mr. Marshall responded that something like that would be part of a waiver process. He added that it is important to define the use so that there is an established criterion and mentioned that longevity of use is not necessarily a component of the criteria. Ms. Pellegrino added that the waiver would be separate from the definition and the waiver would need a set of factors that would need to be defended. Scott Black asked about future conversion projects and if the Authority or NTRAC will have a consultative approach where recommendations can be made. He gave an example of a high school soccer field with a slope near the bleachers on the outside of the field. Ms. Pellegrino said staff would be willing to look at any examples but are trying to make these definitions with a broad stroke, realizing that not every circumstance will be covered under the definitions. Ms. Baca asked if this is just for existing athletic turf or for future development. Ms. Pellegrino stated that the definitions under NTRAC’s purview are for
existing properties and that municipal codes already exist for future development. Regarding the Pet Relief Turf definition, Mr. Hahn stated that 200 square feet is not enough turf for those facilities to care for pets. Ms. Pellegrino stated that this is informed by what is seen in the community today, as many of these facilities have 200 square feet or less and many utilize artificial turf. Mr. Hahn then asked if there is any restriction on sprinklers for artificial turf, primarily for cleaning. Mr. Marshall said there is nothing prohibiting sprinklers on artificial turf and said that it is common to have some spray irrigation for cleaning and maintenance of artificial turf. He added that the amount of water used for this is still far less than what is used for regular turf. Regarding the definition for Residential Area Turf, Larry Fossan clarified the formula for calculating turf allocation. Mr. Marshall added that the turf must be in areas reasonably accessible for active use by residents and not located in streetscapes, parking lots, roundabouts, medians, etc.

Mr. Marshall then presented the definition for nonfunctional turf which means irrigated lawn grass area not meeting the definition of Functional Turf, including without limitation, such areas as streetscape turf, frontage, courtyard, interior and building adjacent turf and certain HOA-managed landscape areas. Tena Cameron spoke about office parks and properties, stating that there are turfed areas next to a building where employees actively go to eat lunch or spend time outdoors on their break. Mr. Marshall stated that particular use is not currently defined as functional but may be part of a waiver process. He recommended that other ways be considered to give employees a nice outdoor experience without the use of turf.

David Strickland commented that many older office parks in the valley need to differentiate themselves from the newer ones, which create amenities inside, to compete for tenants, and they create outdoor spaces for employees to gather for health and well-being. He indicated that a nice grass area plays a large role in creating that space and experience. He later suggested that perhaps the structure of these office parks can be set up much like the multifamily residential where a formula per unit could be used to determine turf allotment. Ms. Cameron stated that many of these areas are an extension of the workplace and are functional in that regard. She added that she hopes there are some exceptions to this definition or ways to show an active use of these spaces.

Mr. Fossan commented that these conversions will have a large economic impact on many of these sectors and costs will likely be passed on to the tenants and residents. Ms. Pellegrino stated that the Authority is sensitive to the economic impact and while it is not the intent of the NTRAC to look at a potential incentive structure, Authority staff will need to re-evaluate some of the conservation program requirements. She added that there is a lot of work that needs to happen in the land use planning sector related to water supply.

Mr. Hahn asked if the committee would help define irrigation efficiencies. Ms. Pellegrino stated that the Authority has an existing program and incentive for cool season to warm season conversions and that irrigation efficiency definitions will not be the purview of the NTRAC. Mr. Black commented that from a governmental oversight standpoint, it is important to adhere to the three guiding principles for these definitions mentioned earlier about consistency in the application of the law, clear definitions that can be applied uniformly and objectively, and thorough definitions that inform whether turf will or will not be permitted under the law.

The next meeting is scheduled for Wednesday, October 27th.
PUBLIC COMMENT
Three members from the public, Robert Gibson, Stacy Standley and Anabel Najarro, submitted written comment in advance of the meeting. Their comments are attached to this meeting summary.

ADJOURNMENT
The meeting was adjourned at 4:37 p.m.
MEETING SUMMARY

October 20, 2021, 1:00 p.m.

Colorado River Conference Rooms, Southern Nevada Water Authority
100 City Parkway, 7th Floor, Las Vegas, Nevada

NTRAC members present: David Strickland  Tena Cameron
Larry Fossan  Scott Black
Brian Walsh  Mauricia Baca
Stephanie Bressler  Dale Hahn

NTRAC members absent: Tom Burns

Staff present: Colby Pellegrino  Zane Marshall
Mitch Bishop  JC Davis
Tabitha Simmons

PUBLIC COMMENT
There were no members from the public wishing to speak; however, Colby Pellegrino, Deputy General Manager of Resources, acknowledged written comment received from David Gray, which were provided to the committee members and are included herein.

SUMMARY OF ACTIVITIES
The Southern Nevada Water Authority’s (Authority) Nonfunctional Turf Removal Advisory Committee (NTRAC) met on Wednesday, October 20, 2021. The meeting began at 1:05 p.m.

#1 Approve agenda and minutes from the September 22, 2021 meeting.
Scott Black moved to approve the meeting agenda and the minutes from the September 22, 2021 meeting. The motion passed.

#2 Discuss defining functional and nonfunctional turf at non-single family residential properties, including potential waiver eligibility and criteria.
Ms. Pellegrino provided a review of the committee’s draft definition of nonfunctional turf, which includes streetscape turf; frontage courtyard, interior and building adjacent turf; and certain HOA-managed landscape areas.

She also discussed the working definition of functional turf, which has been revised based on the committee’s input to mean: an irrigated lawn grass area that provides a recreational benefit to the community and is:

(a) Located at least 10 feet from a street (except as otherwise specified), installed on slopes less than 25%, and not installed within street medians, along streetscapes or at the front of entryways to parks, commercial sites, neighborhoods or subdivisions; and
Ms. Pellegrino then provided the definitions for the various types of functional turf, based on committee feedback, as follows:

**Active/Programmed Recreation Turf**: Irrigated lawn grass in an active/programmed recreation area on homeowner association-owned or managed property at a public park or water park (excluding park streetscape and community frontage areas). Turf on these properties must be 1,500 contiguous square feet or greater; and co-located with facilities, including but not limited to trash bins, benches, tables, walking paths and/or other recreational amenities. The turf must be located at least 10 feet from a public or private street or interior facing parking lot unless the contiguous turf areas at least 30 feet in all dimensions or the turf is immediately adjacent to an athletic field.

Ms. Pellegrino explained that the original definition of active/programmed recreation turf required the turf to be fenced, mainly with regards to schools. This requirement was removed because fenced turf at schools already met the other criteria in the definition.

**Athletic Field Turf**: Irrigated lawn grass used as a programmed sports field or for physical education or intramural use that is 1,500 contiguous square feet or greater, not less than 30 feet in any dimension, and located at a school, daycare, youth recreation center, senior center, public park, private park, water park or religious institution. Athletic field turf may be located less than 10 feet from a public or private street or interior facing parking lot if the contiguous turf area is less than 30 feet in all dimensions.

**Designated Use Turf Area**: Irrigated lawn grass designated for special use at cemeteries and mortuaries.

**Golf Course Play Turf**: Irrigated lawn grass at a golf course in driving range is chipping and putting greens comma tee boxes comma greens comma fairways and rough.

**Pet Relief Turf**: Irrigated lawn grass in a property providing commercial and retail services for pets that is designated for pet use (such as veterinarians or boarding facilities). Pet relief turf may not exceed 200 square feet.

**Playground Turf**: Irrigated lawn grass in designated play areas with playground amenities, including but not limited to slides, swings and climbing structures on homeowner association owned or managed property or at a public park, water park, school, daycare, youth recreation center, senior center or religious institution. Playground turf may be located less than 10 feet from a public or private street if fenced.

**Resident Area Turf**: Up to 150 square feet of irrigated lawn grass per dwelling unit at multi-family residential properties, commercial/multi-family mixed use properties, extended stay hotels/motels, or assisted living and rehabilitation centers used by tenants for recreation and leisure. Resident area turf must be in areas reasonably accessible for active use by residents and therefore may not be located in streetscape frontages, parking lots, roundabouts, medians, driveways and other non-accessible or exclusive use areas such as commercial courtyards.

Ms. Pellegrino explained that this definition was amended to include extended stay hotels/motels, as they are generally used as a housing option as opposed to an amenity for tourists. Turf at mixed use properties,
such as turf at an office park where people also live, was also included as a result of feedback from the committee. This turf must be accessible by residents and not solely used by commercial tenants.

David Strickland asked if a business hotel would fit into this category. Ms. Pellegrino responded that there are very few of these types of properties, where, for example, an apartment is next to a hotel with adjacent turf, but that the turf must be appropriate for the people living there.

Ms. Pellegrino then provided information on functional turf waiver eligibility and the waiver process.

Brian Walsh asked if a programmable area attached to a commercial property, such as the turf fields at Downtown Summerlin, would require a waiver. Ms. Pellegrino acknowledged that it isn’t possible to craft definitions to cover every instance, but that this particular property would require a waiver.

Dale Hahn referenced wedding lawns at golf courses and asked if they might fall under “Designated Use Area Turf.” Ms. Pellegrino responded that those types of areas have been discussed and will require a waiver. She added that the waiver eligibility would depend largely upon how often the turf in the area is used.

Scott Black commented that many parks have incorporated pet parks, which are also used for pet relief, and asked if the pet relief definition should be considered functional within a public park. Ms. Pellegrino responded that pet relief areas are limited to 200 square feet and are intended for use at veterinary offices, while dog parks would fall within “active/programmed recreation turf.”

Ms. Pellegrino then discussed waiver applications, the review process, and reconsideration and appeal in the instance that an entity is not satisfied with staff’s decision. She indicated that anyone could apply for a waiver for functional turf that provides a recreational benefit to the community and meets the functional turf definition.

Tena Cameron asked if there would be considerations for time extensions if a non-functional turf conversion project cannot be completed within the five-year timeframe. Ms. Pellegrino responded that the AB356 legislation does not require the committee to make a recommendation regarding extensions of time, but it does give the Authority Board the ability to approve or deny such extensions.

Zane Marshall, Director of Resources, led a discussion covering several properties illustrating various examples of functional and nonfunctional turf, the reasons for certain turf areas being defined as nonfunctional, and the square footage of nonfunctional turf at each property. He discussed examples at the following types of properties, which can be found in the presentation included with these minutes:

- Hospitals and medical offices
- Commercial and retail centers
- Hotels, motels and resorts
- Golf courses
- Government facilities
- Homeowners’ associations
- Religious institutions
- Cemeteries and mortuaries
- Schools and daycares
- Youth recreation and senior centers
- Multi-family residential
- Assisted living and rehabilitation centers
- Parks
- Commercial and industrial office parks

Mr. Marshall also discussed potential waiver considerations for the different property types.
Dale Hahn said that when TPC participated in the Authority’s turf removal program, they were required to do a technical drainage study, and that any turf within a drainage plain was required to be kept. He asked if drainage control should be addressed, and whether it would be subject to a waiver or handled up front. Ms. Pellegrino responded that those instances would be best handled through the waiver process because it is a site-specific issue as to whether there is another alternative for that turf. She added that the Regional Flood Control District has provided a map of the areas in which turf is required for flood control, and that most of it is, by definition, functional turf.

Dale Hahn asked if a cemetery that removes nonfunctional turf, but then wants to expand in the future would be able to do so. Ms. Pellegrino responded that cemeteries install turf as they develop a unit, and that it would still be considered functional. Mr. Marshall added that if they have relinquished a conservation easement as part of the Water Smart Landscapes Program, that easement can be removed through reimbursement at a later date.

Ms. Pellegrino then asked the committee if there was anything else that needed to be discussed before moving forward with recommendations.

David Strickland commented that an office park that would need to completely relandscape its property, to comply with AB356, could incur significant costs. Ms. Pellegrino acknowledged that certain projects would require significant capital costs and added that at last legislative session, the Authority worked to make water efficiency improvements eligible for Property Assessed Clean Energy Program (PACE) loans, which will allow property owners to make water efficiency improvements with a low interest loan tied to the property.

David Strickland thanked Authority staff for taking him to the Springs Preserve and educating him on sustainable and aesthetically pleasing alternatives to non-functional turf.

Mauricia Baca said that people have reached out to her about the potential impact that turf removal could have on wildlife. She said that there is an educational opportunity that comes with turf removal, and planting replacement species that are both desert appropriate and promote wildlife outcomes.

Ms. Pellegrino said that a draft of recommendations will be ready for discussion at the committee’s November 17 meeting, with the goal of the Authority Board considering the recommendations on January 20, 2022.

Larry Fossan stated that committee members would need to take this information to their constituents and asked if the Authority would be able to provide maps (such as those in the presentation) of functional turf, as well as non-functional turf removal opportunities. Mr. Marshall responded that staff has the capacity to produce such maps.

David Strickland asked if there is consideration of non-functional turf alternatives that don’t use any water. Ms. Pellegrino discussed an incentive program in which parks can remove turf and put in a sporting facility or something similar.

Scott Black commented that this process lays the foundation for a successful future, but that it’s complex because the community is being asked to do something completely new and different than what has been done historically. He asked if a sample financial illustration from each category could be provided, covering the turf removal process from beginning to end, including project and rebate costs. Ms. Pellegrino responded that the Authority has data from past conversions that could be shared.
Conservation Division Manager, said that on approximately one-third of turf removal projects, the Water Smart Landscapes rebate has covered the entire cost, and that for the remainder of the projects, the rebate has generally covered about 75 percent of the project cost.

Larry Fossan said that these turf replacements will not only result in water savings but will also yield significant savings in maintenance costs.

Brian Walsh reiterated said that this isn’t a question of if we choose to comply, but that it is something that must be done.

The next meeting is scheduled for Wednesday, November 17.

PUBLIC COMMENT
There were no members from the public wishing to speak.

ADJOURNMENT
Meeting was adjourned at 2:45 pm.
PUBLIC COMMENT
Robert Gibson, 43 Innisbrook Ave., provided a letter to the committee prior to the meeting and summarized it during public comment. His letter is attached to this summary.

Ed Uehling, Las Vegas, commented that the proposed plan to remove non-functional turf is a redistribution of wealth from the east side of the valley to the west side. He provided written comment to the committee, which is attached to this summary.

Andrew Kerr, Las Vegas, provided a letter to the committee prior to the meeting and read it during public comment. His letter is attached to this summary.

SUMMARY OF ACTIVITIES
The Southern Nevada Water Authority’s (Authority) Nonfunctional Turf Removal Advisory Committee (NTRAC) met on Wednesday, November 17, 2021. The meeting began at 1:01 p.m.

#1 Approve agenda and minutes from the October 20, 2021 meeting.
Brian Walsh motioned to approve the meeting agenda and the minutes from the October 20, 2021 meeting. The motion was approved.

#2 Review draft recommendations, including definitions for functional and nonfunctional turf, and make any changes or additions to the recommendations.
Colby Pellegrino, Deputy General Manager of Resources, stated that a Recommendations Report was shared with the committee and posted online, and includes an overview of the members, process, discussion and issues. The report seeks to formalize the functional and nonfunctional turf definitions, the waiver process and future committee convening and outreach efforts. Ms. Pellegrino reviewed the draft Recommendation #1, which is the definition for non-functional turf and the draft Recommendation #2, which is the definition of all functional turf types, including: Active/Programmed Recreation Turf, Athletic Turf, Designated Use Area Turf, Golf Course Play Turf, Pet Relief Turf, Playground Turf and Resident Area Turf. Ms. Pellegrino went into more detail for the Resident Area Turf definition as it came
up as part of public comment. Dale Hahn asked if the definition should specifically include “townhome and duplexes.” Ms. Pellegrino responded that their zoning classification is a multi-family residential property, but if desired, the committee can include more specific language. Doa Ross, Deputy General Manager of Engineering, stated that the term “townhome” is not in statute and is not a legal term, adding that “single-family attached” is the correct language and is how it gets mapped. After discussion, the committee’s consensus was to add “single-family attached properties” to the Resident Area Turf definition. Larry Fossan asked about large limited common areas within townhome HOAs that the HOA maintains and was deeded to them. Ms. Pellegrino stated that the area that is deeded to the HOA to maintain is not considered single-family residential, and the language in the statue is exclusively for the use of a single-family residence and would be subject to the non-functional turf definitions.

Ms. Pellegrino stated that Recommendation #3 is to establish a waiver process for non-single family residential properties for turf that is not permitted under the current definitions. She presented a quick reference table that includes all the functional turf definitions, and then noted the waiver eligibility and the review process. She also gave an overview of the reconsideration and appeal process if a customer is not satisfied with the waiver application decision. Tena Cameron stated that the schedule for the waiver process is not included in the Recommendations Report and suggested that it be added. Ms. Pellegrino stated that it will be added to report.

Ms. Pellegrino stated that Recommendation #4 is to reconvene the NTRAC as needed to discuss other issues pertaining to the implementation of AB356. There was no discussion on this recommendation.

Ms. Pellegrino stated that Recommendation #5 is to conduct outreach activities with non-single family residential property owners and managers to support implementation of AB356. There was no discussion on this recommendation.

Mr. Hahn asked about a property mentioned in opening public comment and how it specifically might relate to the waiver process. Ms. Pellegrino stated that if a property does not meet the functional turf definition and requirements, the waiver process is intended to catch those properties that don’t fit squarely in the definitions. David Strickland asked what managed property means as it relates to the Active/Programmed Recreation Turf definition and asked if it included the commercial side. Ms. Pellegrino stated that the definition is intended to be homeowner association or managed property and does not include anything in the commercial or retail sectors. Ms. Cameron stated that the definition might lead to some confusion because there is nothing specific as it relates to the commercial sector and suggested that the report specifically state that commercial property turf is not considered functional in any way. Zane Marshall stated that if an area is not defined as functional turf in the definitions, then it is non-functional turf and suggests taking that approach, adding that it would prove difficult to have a definition for every case for non-functional turf that occurs across the valley. There was some discussion within the committee, and it was determined that the definition remain unchanged.

*#3 Discuss, finalize and, if appropriate, approve the Recommendations Report and submit the report for consideration by the Southern Nevada Water Authority Board of Directors.*

Scott Black made a motion to approve the Recommendation Report with the addition of “single-family attached property” under the Resident Area Turf definition and including the Quick Reference Table. The motion was approved.
#4 Review the Plan for Removal of Nonfunctional Turf, and direct staff accordingly.
Ms. Pellegrino stated that Assembly Bill (AB356) requires the SNWA to develop an implementation plan for the removal of nonfunctional turf to be approved by the SNWA Board of Directors. A draft plan was presented to the committee and posted online to incorporate their draft definitions and recommendations. Mr. Black asked that an overview of the plan and its components be presented for the record. Ms. Pellegrino stated that the plan highlights how the SNWA has managed the use of Colorado River Water and how AB356 fits into water management. The implementation of the plan gives a high-level overview of the nonfunctional and functional turf definitions, the waiver process, and community outreach. Mr. Black stated that this plan is straightforward and reflects what the committee has done over the past several months, with the focus on conserving water resources in the Las Vegas valley. He added that the outreach and consultative approach is a valuable piece to the implementation of this plan.

Mr. Black made a motion to approve the Implementation Plan for the Removal of Nonfunctional Turf in Southern Nevada. The motion was approved.

#5 Discuss next steps in the committee process and community outreach.
Ms. Pellegrino stated that the SNWA recognizes that many properties in Southern Nevada will be affected by the legislation and definitions and gave an overview of the outreach efforts and opportunities to communicate to the Southern Nevada community. SNWA staff outreach efforts include, but are not limited to:

- Web pages that include the definitions and examples
- Speakers bureau, tailored to industry
- Direct mail to property owners
- Stakeholder briefings
- Targeted outreach to professional associations and business groups
- Water bill insert information
- [Water Smart Living](#) homeowner newsletter information
- Social media
- Vegas Valley H2O segment
- Springs Preserve tours of water smart landscaping
- Dedicated conservation staff to handle call volume, inquiries, and program management

Mr. Fossan recommended that staff reach out specifically to the landscape market and their water management group, to help correct some bad industry habits and help find other ways to save water. Ms. Pellegrino stated that this effort will be added to the list and recommendations. Mr. Walsh added that this effort is for the committee and the SNWA to help identify what is and is not functional turf, as it relates to the legislation, and NOT that the SNWA, as an organization, is responsible for removing all nonfunctional turf in the valley. While a nuance, he stated that it is important to clarify, to which Ms. Pellegrino agreed and added that communication will become more targeted as time goes on. Mr. Strickland recommended the inclusion of commercial managers and property owners in the outreach efforts, and Tom Burns volunteered the resources of the various Chambers as another outreach opportunity. Ms. Pellegrino stated that targeted outreach to professional associations and business groups will be a key piece in this effort.

Ms. Pellegrino stated that today’s meeting was to discuss and finalize recommendations and that the SNWA Board will consider the committee’s Recommendations Report at their January 20, 2022 meeting. She stated that public outreach will begin following that Board meeting and approval of the report and
added that the NTRAC may reconvene as needed to discuss other issues pertaining to the implementation of AB356. Ms. Pellegrino concluded by thanking the committee members for their time, resources, and education on their specific industries.

PUBLIC COMMENT
Robert Gibson stated that under the Nevada constitution, it is an illegal and wrongful action to not allow the use of water for irrigation and that such action requires payment to the owners for their loss of property value in addition to the loss of use. He stated that while there is a $3 water smart landscape rebate for turf removal, that amount does not cover costs for turf removal and new landscaping, not to mention potential property value loss.

Ed Uehling continued his comment about a re-distribution of wealth from the east side of the valley to the west side, adding that many homes, especially on the east side of the valley have lost property value due to the removal of turf, and how existing customers have subsidized the pumping of water to the west side of the valley for new construction. Ms. Pellegrino stated that there is more nonfunctional turf in the more affluent areas of the community than in the less affluent areas of the community.

Kam Brian, COO for Par 3 Landscape, stated that their company has more than 400 customers in the valley and many are anxious about how this legislation will affect their communities. He stated that these broad definitions have unintended consequences and stated that Par 3 Landscape wants to be part of a solution, as they have removed more than one million square feet of turf across the valley. He commented on the waiver process and recommended that there be the ability to come to the committee and offer a different method to achieve the same water savings goal, even if it falls outside the definitions made by the committee.

Lisa Perry, Las Vegas, asked for clarification on the limited common use element for associations that water single-family residential turf.

Along with Robert Gibson, Andrew Kerr and Ed Uehling, Kathi Meci submitted written comment in advance of the meeting. Their comments are attached to this meeting summary.

ADJOURNMENT
The meeting was adjourned at 2:16 p.m.
**APPENDIX B**

**January 20, 2022 SNWA Board Agenda Item**

**SOUTHERN NEVADA WATER AUTHORITY**
**BOARD OF DIRECTORS**
**AGENDA ITEM**
January 20, 2022

<table>
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<tr>
<th><strong>Subject:</strong></th>
<th>Nonfunctional Turf Removal Advisory Committee Recommendations</th>
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</thead>
<tbody>
<tr>
<td><strong>Petitioner:</strong></td>
<td>Colby N. Pellegrino, Deputy General Manager, Resources</td>
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<tr>
<td><strong>Recommendations:</strong></td>
<td>That the Board of Directors receive a presentation on the Nonfunctional Turf Removal Advisory Committee process and accept the report.</td>
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**Fiscal Impact:**
None by approval of the above recommendation.

**Background:**
In June 2021, the Nevada Legislature enacted Assembly Bill (AB) 356, which directed the Authority’s Board of Directors to develop a plan for the removal of nonfunctional turf in the Las Vegas Valley. The Legislature also created the Nonfunctional Turf Removal Advisory Committee (NTRAC) and directed the Board to appoint nine community stakeholders who would then convene to collaborate with the Authority to develop its plan to identify and facilitate the removal of existing nonfunctional turf. In July 2021, the Board appointed individuals representing commercial and industrial properties, homeowners’ associations, golf courses, multifamily properties, environmental interests and municipalities to the NTRAC.

From August 2021 to November 2021, the committee met four times to formulate its recommendations. The committee’s process included a review of existing drought conditions, the development of definitions for “functional turf” and “nonfunctional turf,” and development of a process to apply for and obtain a waiver or exemption from the nonfunctional turf definition. On November 17, 2021, the NTRAC reviewed and approved its final recommendations report to be submitted to the Board.

At this time, the Board is being asked to accept NTRAC’s recommendations report, which includes definitions for functional and nonfunctional turf and a waiver process, and which Authority staff will use to assist member agencies with language to be incorporated into their service rules and other regulatory language, such as ordinances and codes.

This action is authorized pursuant to Section 6(p) of the SNWA 1995 Amended Cooperative Agreement and Sections 39(2) and 41 of Assembly Bill 356 (2021). The office of the General Counsel has reviewed and approved this item.