



EL PASO · DISTRICT 1

PLATFORM NO. 10 · AUGUST 2026

CITY OF EL PASO – ENVIRONMENT & QUALITY OF LIFE POLICY PLAN

The Cover We Need

A Tree Canopy and Urban Heat Plan for El Paso That Costs the General Fund Almost Nothing — and an Honest Account of How Long It Takes.

**Leadership that is not afraid
to fight for its people.**

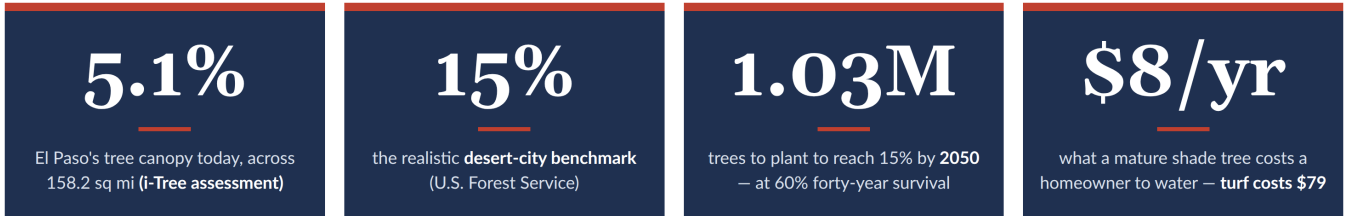
PRINCIPLED. EXPERIENCED. PROVEN.

It's time to elect leadership that will make the city work for its people again.



EXECUTIVE SUMMARY

El Paso’s tree canopy covers 5.1% of the city, measured across 158.2 square miles in the i-Tree community forest assessment. U.S. Forest Service research puts a realistic baseline for desert cities at about 15%. There is enormous room to grow — and three things about the goal have to be settled before a single tree is ordered.



	The correction	Why it matters
1	Fifteen percent is the right destination	U.S. Forest Service research identifies roughly 15% as a realistic canopy target for desert cities — 40–60% is attainable only in forested states. Fifteen percent is nearly triple El Paso’s current 5.1% and represents about 10,024 acres of new canopy. It is the correct goal. It is not a four-year goal.
2	Canopy lags planting by fifteen to twenty years	A tree planted in 2027 delivers meaningful canopy around 2045. Reaching 15% requires planting roughly 1,029,000 trees — at the fastest rate this plan can realistically sustain, that is a 2050 goal. The 2030 deliverable is the machinery running at rate.
3	Water is the binding constraint, and turf is the answer	At maturity, 15% canopy needs about 3.38 million gallons a day — 58% of the reclaimed water EPWater supplies today. That is a real constraint. But the same footprint under bermuda turf would need 33.6 MGD. Canopy needs 10% of what turf needs. At this scale, turf conversion is not a talking point — it is the water plan.

The scale. Reaching 15% means about 10,024 acres of new canopy — roughly 618,000 mature trees, which at a 60% survival rate means planting about 1,029,000. That figure is almost identical to the goal Eco El Paso has already set with Million Trees El Paso, which is a useful alignment rather than a coincidence. If the city installed them under contract it would cost \$515 million. That path does not exist.

El Paso cannot plant its way to 15% canopy and does not need to. The volume comes from development code that makes new growth plant its own shade — at zero cost to the General Fund — plus giving trees away at nursery cost rather than installing them at contractor cost. The city’s own

spending is roughly \$1.2 to \$2.5 million a year, or 0.22 to 0.45 cents of tax rate, and there are at least four non-tax sources for it.

How the trees get watered. Reclaimed water will not reach residential yards — purple pipe serves parks, schools and large landscapes, and a parallel non-potable network to single-family lots is not economic anywhere in the country. About 7% of these trees drink reclaimed water. The plan is explicit about the other 93%: harvested street runoff waters the street trees, developers build irrigation for the trees the code requires, and a giveaway tree costs a homeowner about \$8 a year from the hose — against \$79 for the turf it replaces.

And heat measures that work next summer. Canopy is the durable answer and it takes twenty years. Part Three sets out thirteen measures in three cost tiers that take one ordinance and work the following July. The hottest surfaces in El Paso are not buildings — they are dark asphalt and dark low-slope roofs, and the council writes the code governing both. A cool roof standard is a specification rather than an addition, so the cost differential on new low-slope construction is close to zero. Reducing parking minimums saves developers money while shrinking the hottest surface in the city. Bus stop and playground shade sit inside replacement budgets already appropriated. Converting non-functional city turf cuts heat and the city's water bill at once.

How it fits the rest of the series. The stormwater work funds the expensive half — street tree basins are flood control, and Tucson's figures put green infrastructure at a benefit-cost ratio of 2.1 with 10–24% peak flow reduction. The water bill work is the same argument from the other end: turf-to-canopy conversion across this programme could save 7.5 to 30 million gallons a day, against a desalination plant that produces 27.5 at maximum. And against the 79.8-cent rate commitment, residual General Fund exposure is \$300,000 to \$600,000 a year — roughly what shade and cool roofs save off the city's own \$24.3 million utility bill.

What it returns. El Paso's own i-Tree assessment measured the existing forest at \$6.05 million a year in energy, stormwater, carbon and air quality value, against a replacement value of \$1.02 billion. Scaled to 15% canopy that is roughly \$17.8 million a year — an increment of \$11.7 million. Half of it is energy and a third is stormwater. None of it is budget revenue, and the plan says so. The assessment also exposes the cheapest improvement available: El Paso's trees return \$4.72 each per year against \$49 to \$60 in Los Angeles, because a quarter of the population is Italian cypress producing 2.6% of the leaf area. This city is not short of trees. It is short of shade.

The honest timeline. Hitting 15% by 2050 requires a sustained 43,000 trees a year for 24 years — above the top of what this plan can deliver in its first four seasons. By 2030 the realistic total is 82,000 to 164,000 trees, or 8% to 16% of the requirement. The 2030 test is not the canopy number. It is whether the code is adopted and the annual planting rate has reached 40,000.

PART ONE — THE ARITHMETIC

1 — What 15% actually requires

	Figure	Source
Study area	158.2 sq mi	i-Tree assessment
Current canopy	5.1%	i-Tree assessment
Current canopy area	~5,164 acres	Calculated
Desert-city benchmark	~15%	USFS — Nowak & Greenfield
Canopy area at 15%	~15,187 acres	Calculated
New canopy required	+10,024 acres	Calculated

How many trees depends entirely on species selection, and the difference is not marginal.

Mature crown	Canopy per tree	Mature trees needed	Trees to plant
Small — 20 ft (desert willow)	314 sq ft	1,390,528	2,317,547
Medium — 30 ft (cedar elm, mesquite)	707 sq ft	617,576	1,029,293
Large — 40 ft (Arizona ash, pistache)	1,257 sq ft	347,356	578,926

Planting figures assume the 60% forty-year survival rate the USFS Desert Southwest Community Tree Guide uses. National research finds about 30% of urban trees die within five years, overwhelmingly from inadequate watering during establishment — which is why this plan spends more attention on the first three years than on the planting day.

The single most consequential decision in this plan is species. Planting large-crown, desert-adapted shade trees instead of small ornamentals cuts the requirement from 2.3 million trees to 579,000 — a four-fold difference in cost, water, labour and land, and the difference between a goal that is merely hard and one that is impossible. Every ordinance and every giveaway in this

plan should specify canopy class, not tree count. A policy that says “plant two trees” and gets two crape myrtles has achieved almost nothing.

2 — Why the city cannot buy its way there

Delivery method	Cost per tree	Total for 1,029,293	Annual over 24 yrs
City contract, installed	\$500	\$514.6M	\$21.4M — 3.86¢
City contract, difficult sites	\$800	\$823.4M	\$34.3M — 6.17¢
City contract, large caliper	\$1,500	\$1.54B	\$64.3M — 11.56¢
Given away, resident plants	\$60	\$61.8M	\$2.6M — 0.46¢
Required by code, developer plants	\$0 to the city	\$0	\$0

For scale: one cent of El Paso property tax rate raises about \$5.56 million. Municipal installation would cost between four and twelve cents of tax rate every year for twenty-four years. It is not a close call, and no amount of grant funding closes a gap that size. The plan below is built around the two rows that cost almost nothing.

3 — The water question

This is the first objection you will hear in a desert city and it deserves a real answer rather than a deflection.

	Volume	As % of reclaimed supply
Establishment demand, ~1,029,000 trees at ~600 gal/yr	617.6M gal/yr — 1.69 MGD	29%
Mature demand, ~618,000 trees at ~2,000 gal/yr	1.24B gal/yr — 3.38 MGD	58%
EPWater reclaimed water supplied today	5.83 MGD	—

El Paso has been reusing treated wastewater since the 1960s and built a purple-pipe distribution network in the 1990s. EPWater supplies more than 5.83 million gallons a day of reclaimed water to golf courses, city parks, school grounds, apartment landscapes and industrial sites. But at 15% canopy the mature demand reaches 58% of today’s reclaimed output, and that is a genuine constraint rather than a

rounding error. Two things resolve it. Reclaimed capacity grows as the city grows, since the source is wastewater. And the turf arithmetic changes the question entirely.

THE TURF ARITHMETIC

THE SAME 437M SQ FT FOOTPRINT, TWO WAYS

33.6

MGD as bermuda turf
28.1 gal/sq ft applied water

VS

3.38

MGD as mature canopy
~2,000 gal per tree per year

90%

less water on every converted footprint
~17,831 gal saved per conversion

At full scale the difference is **30 million gallons a day** — more than the Kay Bailey Hutchison desalination plant produces at maximum (27.5 MGD), and five times EPWater’s entire current reclaimed output (5.83 MGD).

El Paso does not have a water problem with trees. It has a water problem with lawns — and trees are part of the solution.

Two caveats to keep the claim honest. Reclaimed water only reaches where purple pipe reaches, so residential plantings will generally use potable water — which is exactly why the turf-conversion framing matters for the residential programme. And the turf figure is a planning estimate; ask EPWater for its own applied-water rates for turf versus tree canopy before publishing the number.

PART TWO — THE PLAN

4 — How the trees actually get watered

HOW EVERY TREE GETS WATERED

FOUR CATEGORIES · FOUR WATER SOURCES · WHO PAYS

TREE CATEGORY	SHARE	WATER SOURCE	WHO PAYS
Parks, city facilities, school grounds	~7%	Reclaimed — existing purple pipe	City and EPWater
Street trees and rights-of-way	~18%	Harvested street runoff — curb cuts and basins	Stormwater programme
Development-required trees	~40%	Owner’s irrigation, built at construction	Property owner
Giveaway residential trees	~35%	Homeowner hose or drip	Homeowner — about \$8 a year

THE STREET-TREE MATH

One inch of rain on one block of pavement is ~7,480 gallons. At a conservative 40% capture spread across ten street trees, harvested runoff delivers ~2,693 gallons a tree — against the ~2,000 a mature desert-adapted tree needs. Tucson has run this for 25 years on 12 inches of rain.

93% of these trees never touch reclaimed water — and never need to. Street runoff is currently a liability the city pays to move. Curb cuts turn it into the irrigation budget.

The residential answer: it costs the homeowner about eight dollars a year. A young tree needs roughly 600 gallons a year during establishment and a mature one about 2,000. At El Paso residential rates that is a couple of dollars a year while it establishes and about eight dollars a year for

the rest of its life — less than a household spends on a single bag of ice a month. The 707 square feet of bermuda turf on the same ground takes about 19,831 gallons — roughly \$79 a year. A shade tree costs about eight dollars a year to water, cuts your summer cooling bill, and if you pull up the grass underneath it you come out roughly seventy dollars ahead. Verify the rate against EPWater’s current residential tiers before publishing the figures — they are tiered and seasonal, and the numbers use a flat planning assumption.

The street tree answer: harvest the runoff that already floods the street. Rain in the Chihuahuan Desert arrives in monsoon bursts — the same intensity that floods streets is the intensity that fills a basin. Right now that water is a liability the city pays to move. Curb cuts turn it into the irrigation budget. The economics are documented rather than speculative: Watershed Management Group’s analysis for Tucson put green infrastructure at about \$23 per square foot against \$48 of benefit — a benefit-cost ratio of 2.1. Curb-cut rain gardens scored 2.7 and residential rain gardens 4.4. Tucson permits a curb cut for \$50, rebates half the cost of passive earthworks up to \$500, and funds a \$3 million annual green stormwater programme from a utility fee of \$0.75 to \$1.50 a month.

Why this belongs in the stormwater work, not the tree work. El Paso does not have a rainfall problem. It has a runoff problem — water arriving faster than the drainage system can carry it, which is expensive to engineer around and occasionally catastrophic. Every basin that holds street runoff for a tree is a basin not sending it downstream, and Tucson’s modelling found green infrastructure cut 100-year three-hour peak flows by 10 to 24% across three watersheds. This is the connection to the Stormwater Impact Fee Plan and it works in both directions: the stormwater programme pays for the tree basins because they reduce drainage cost, and the trees are free shade on top. A tree funded as flood control does not compete with anything in the General Fund.

What council actually has to do about water:

	Action	Detail
1	Adopt a green streets standard	Require stormwater harvesting features — curb cuts and vegetated basins — in all new and rebuilt publicly funded roadway projects, sized to capture at least the first half-inch of rain on the roadway. The single highest-leverage water decision in the plan, and it belongs in the right-of-way design standards the Roadway Protection Plan already touches.
2	Permit and rebate residential curb cuts	Tucson charges \$50 and requires a licensed contractor. Create the permit pathway first — in many cities the barrier is not cost but that the permit does not exist. A modest rebate on passive earthworks follows.

	Action	Detail
3	Stub irrigation at construction	New subdivisions install street tree irrigation during construction rather than retrofit. Retrofitting is what makes street trees expensive; at construction it is nearly free and the developer pays.
4	Sequence purple pipe to planting priorities	Where EPWater extends reclaimed mains, the extension should follow the priority planting corridors rather than the reverse. A negotiation with a separate utility, not a directive.
5	Pair every giveaway with turf conversion	EPWater already runs conservation rebate infrastructure. Redirecting a portion toward tree-for-turf makes the residential programme water-negative and saves the homeowner money — which is what makes it survive a drought year politically.
6	Fund three years of establishment support	The water is not the risk. The first three summers are — about 30% of urban trees die within five years, overwhelmingly from watering failures. Text reminders, a watering bag with every giveaway tree, and one second-year site visit cost a fraction of replacement.

5 — Mechanism one: the development code

This is where the volume comes from, and it costs the General Fund nothing. It is also the same principle as every other plan in this series: new development should carry the cost of the infrastructure it requires, and shade in a desert city is infrastructure.

Code change	What it does
Canopy-class tree requirement per residential lot	Two medium or large-crown trees per new single-family lot, specified by mature canopy class rather than count. Species list restricted to desert-adapted shade trees. Builder plants at certificate of occupancy; a modest bond or escrow releases after two growing seasons to force survival rather than installation.
Parking lot shade standard	A minimum percentage of paved parking area under canopy at maturity — the single highest-leverage heat island measure available, because parking lots are the hottest surfaces in the city and the trees serve people who are already there.
Subdivision street tree standard	Street trees in the right-of-way at fixed spacing on new collector and local streets, with irrigation stubbed at construction. Retrofitting irrigation later is what makes street trees expensive; installing it during construction is nearly free.
Commercial and multifamily landscape minimum	Canopy percentage of site area, replacing any existing ornamental-count standard.

Code change	What it does
Preservation and mitigation	Removal of a mature tree on a development site triggers replacement to equivalent canopy or payment into a tree fund. El Paso’s own Tree Care Manual already sets the standard that replacement should equal the removed tree’s leaf canopy within ten years — this extends the principle to private development and gives it teeth.

Realistic yield: 8,000 to 15,000 trees a year from new residential and commercial construction combined, at no municipal cost. Verify against actual permit volumes before publishing a number — the Planning and Inspections annual permit report gives single-family, multifamily and commercial counts, and the estimate should be rebuilt from it.

6 — Mechanism two: water infrastructure

Every public tree this plan puts in the ground should be on reclaimed water where purple pipe reaches, and the pipe should follow the planting priorities rather than the reverse. The asks of EPWater are modest and none require a rate increase: a dedicated non-potable rate class for public tree irrigation; purple-pipe extension sequenced to match the priority planting corridors; and a standing agreement that new city facilities and major right-of-way projects stub reclaimed irrigation at construction. EPWater is a separate entity and this is a negotiation, not a directive — but the utility has spent sixty years building exactly this capability and has an institutional interest in demonstrating its use.

For residential plantings that cannot reach purple pipe, the answer is the turf conversion in Section 3 plus smart establishment watering. University of Arizona research on establishment-stage irrigation techniques projects savings of roughly 1,700 gallons per tree per year during the vulnerable early years — the same years when 30% of urban trees die. Better watering technique is simultaneously the cheapest water saving and the cheapest survival measure available.

7 — Mechanism three: give the trees away

A five-gallon desert-adapted shade tree costs roughly \$40 to \$80. The same tree installed under city contract costs \$500 to \$1,500. The difference is labour and liability, and residents will supply both for free on their own property. El Paso already runs this programme — 915 Tree Keepers, through Community and Human Development — and the work is to scale it and remove its friction.

Change	Why
Drop the five-neighbour requirement	The current programme requires at least five neighbours on the same block to adopt together. Block-level clustering produces better canopy outcomes and should stay as a priority, not a precondition. The requirement almost certainly suppresses uptake more than it improves siting.
Specify canopy class, not tree count	The programme should offer large and medium-crown desert-adapted species. Four small ornamentals do not equal one shade tree.
Fund and staff a three-year establishment follow-up	Nationally about 30% of urban trees die within five years, mostly from watering failures. A programme that plants 20,000 and loses 6,000 has wasted \$360,000. Text-message watering reminders and a second-year site visit cost a fraction of replacement.
Pair every giveaway with a turf-conversion offer	Ties the tree to a water saving on the same lot, which is what makes the whole programme defensible in a drought year.
Target by heat and canopy deficit	Use the i-Tree data and surface temperature mapping to prioritise the neighbourhoods with the least existing shade — which are, reliably, the ones with the least ability to buy their own.

Realistic yield: 10,000 to 20,000 trees a year at a tree cost of \$600,000 to \$1,200,000. This is the only line in the plan that requires real municipal money.

8 — Mechanism four: keep what already exists

The cheapest canopy in El Paso is the canopy already standing. A mature tree removed represents twenty to forty years of growth and water already invested; replacing it costs the same money twice and delivers nothing for two decades. Preservation is not a side note to a planting programme — in a slow-growing arid climate it is the larger half of the arithmetic.

Three measures, none of which require new revenue: extend the protection standards in the city's existing Tree Care Manual from public property to private development sites; require a certified arborist's tree survey as part of site plan review for parcels above a size threshold; and impose construction-phase root and trunk protection with an inspection tied to the certificate of occupancy. The city already has the technical standard written. What it lacks is application and enforcement.

9 — Mechanism five: partners

Partner	What they bring
Eco El Paso — Million Trees El Paso	An existing local programme with the same goal, funded through donations, memberships and grant writing, purchasing from local nurseries. The city should be its distribution channel, not its competitor. A memorandum of understanding costs nothing.
Texas A&M Forest Service	The state pass-through for USDA Forest Service urban and community forestry grants, and a partner in the multi-state Desert Canopy assessment that produced El Paso's i-Tree baseline. Also the source of technical standards and species guidance.
El Paso Water	Reclaimed water, conservation rebate infrastructure that can be redirected toward turf-to-tree conversion, and existing customer relationships.
El Paso Electric	Utility line-safe planting programmes are a standard offering elsewhere and reduce the utility's own vegetation management costs. Worth asking.
School districts and the county	Large irrigated sites, many already on reclaimed water, and a shade deficit on playgrounds that is a genuine child health issue.
Local nurseries	Volume contracts stabilise supply of desert-adapted stock, which is a real constraint at 20,000 trees a year.

PART THREE — HEAT WITHOUT TREES

10 — What council can do that works faster than a tree

Canopy is the durable answer and it takes twenty years. Everything in this part takes one ordinance and works the following summer. None of it requires an election, a bond, or a tax increase, and most of it costs the General Fund nothing at all. One framing point worth holding onto: the hottest surfaces in El Paso are not buildings. They are dark asphalt and dark low-slope roofs, and both are governed by code the council writes.

Tier one — ordinance changes at zero net cost:

	Measure	What it does and what it costs
1	Cool roof standard	Require high solar-reflectance roofing on new low-slope commercial and multifamily roofs, and on re-roofing above a permit threshold. The material cost differential on new low-slope construction is close to zero — it is a specification, not an addition — and surface temperature differences of 50 degrees or more between dark and reflective membranes are routine. The single largest heat measure available to a council for no money.

	Measure	What it does and what it costs
2	Reduce or remove parking minimums	Every required stall that goes unused is asphalt absorbing sun all day and radiating it all night. Lowering minimums saves developers money rather than costing them, shrinks the hottest surface in the city, and cuts stormwater runoff at the same time. Politically contested in a car-dependent city — raise it as heat and drainage policy, not as transportation policy.
3	Parking lot shade standard	A minimum percentage of paved parking under canopy at maturity. Same instrument as the tree code in Part Two, aimed at the hottest ground in the city and serving people already standing on it.
4	Allow and encourage parking canopies	Height, setback and coverage rules in many codes make shade structures over parking difficult to permit. Removing those barriers costs nothing and lets private owners shade their own lots — often with solar mounted on top, which pays for the structure.
5	Right-of-way design standards	Narrower pavement sections on new local streets, and irrigation stubbed for street trees at construction. Aligns with the Roadway Protection Plan.
6	City procurement specification	Require high-reflectance roofing and lighter surfacing on city facilities at scheduled replacement. A spec change against money already budgeted — the roofs are being replaced regardless.

Tier two — low cost, inside existing budgets:

	Measure	What it does and what it costs
7	Bus stop shade at replacement	Shade at transit stops serves the residents least able to avoid heat — people standing outside because they have no car. Funded at the Sun Metro shelter replacement cycle rather than as a new programme, the marginal cost is small. Prioritise by ridership and measured surface temperature.
8	Playground and splash pad shade	Playground surfaces regularly exceed safe contact temperature in an El Paso summer, which makes the equipment unusable in the months it is most needed. Fund from the \$1.5 million parks and recreation amenity replacement line already in the budget — shade structures are an amenity replacement.
9	Convert non-functional city turf	Medians, frontages and unused margins at city facilities carry turf nobody walks on. Converting them to shade trees and desert landscape cuts heat and cuts the city's water bill at the same time — roughly 90% on each converted footprint. This measure pays for itself and should be first.
10	Designate and publicise cooling centres	Libraries and recreation centres are already open and already air-conditioned. Formally designating them, extending hours on declared heat days, and publicising the list in both languages costs very little — and is the difference between a facility existing and a resident knowing it exists.

Tier three — administrative, near zero:

	Measure	What it does and what it costs
11	A heat emergency protocol with a trigger	A stated temperature threshold that automatically activates extended cooling centre hours, outreach to unsheltered residents, and utility disconnection forbearance. Built on existing emergency management structures — a written protocol, not a new department.
12	Surface temperature mapping	Free satellite thermal data, and UTEP is a natural research partner. Mapping tells you which blocks to shade first, and converts the programme from advocacy into targeting. This should precede the planting priorities in Part Two.
13	Report heat outcomes annually	Heat-related EMS calls and emergency department visits, reported to council each autumn alongside the tree planting count. Measurement is what keeps a programme alive after the person who started it leaves.

How this connects to the rest of the series. Heat mortality is largely a cooling affordability problem — people die in un-air-conditioned homes, and in homes where the resident is afraid of the bill; rate advocacy and disconnection protection during declared heat events are heat policy, which is the connection to the Electric Ratepayer Protection Project. Shade, permeable surface and reduced parking all cut runoff as well as heat — canopy credits against stormwater obligations make one instrument serve two purposes. Street tree irrigation stubbed at construction belongs in the same right-of-way standard the Roadway Protection Plan touches. And Tier one costs nothing, Tier two sits inside the parks amenity line and the Sun Metro replacement cycle already budgeted, Tier three is administrative. Nothing in this part requires a rate increase — which is the point.

PART FOUR — PAYING FOR IT

11 — The money, without a tax increase

Total municipal cost is roughly \$1.2 million a year — the giveaway trees, plus establishment follow-up and a programme coordinator. That is 0.22 cents of tax rate. Here is where it comes from instead.

Source	Annual	How it works
Tree mitigation fund	Variable	Payments in lieu of on-site replacement when development removes mature canopy. Self-funding by design — the fund grows when canopy is lost and spends when it is replaced. This should be the primary source.

Source	Annual	How it works
USDA / Texas A&M Forest Service grants	\$100K–\$500K	Federal urban and community forestry funding flows through the state forest service. Verify current programme status before relying on it — federal urban forestry funding changed materially in 2025 and the paper should not assume a figure.
Stormwater credit	Offset	Trees intercept rainfall and reduce runoff. Canopy credits against stormwater obligations tie this plan directly to the Stormwater Impact Fee Plan — one instrument, two purposes.
Chapter 380 incentive agreements	Deal-specific	Canopy requirements written into future economic development agreements, alongside the jobs-per-dollar accountability standards already drafted.
Partner and philanthropic match	\$200K–\$500K	Eco El Paso already raises for exactly this. A city match multiplies rather than substitutes.
Existing budget reallocation	\$300K–\$600K	915 Tree Keepers already exists in Community and Human Development. The Downtown Street Tree Master Plan already exists. This is consolidation and redirection, not new programme creation.

The structural point. Every other plan in this series argues that new development should pay for the infrastructure it requires rather than spreading the cost across existing residents. Shade is infrastructure in a city that hits 95 degrees in July, and this plan applies exactly the same principle. The tree requirement in the development code and the mitigation fund are the same instrument as a roadway impact fee, aimed at a different kind of infrastructure.

12 — How this fits the water and tax commitments

The Stormwater Impact Fee Plan pays for the expensive half. Street trees are the costly part of any canopy programme, because they need irrigation infrastructure and the city owns the ground. Reclassify the basins as flood control and the cost moves off the General Fund entirely. That is not a bookkeeping trick — it is what the features actually do. Documented in Tucson: green infrastructure costs about \$23 per square foot against \$48.35 of benefit (a benefit-cost ratio of 2.10); curb-cut rain gardens score 2.7 and residential rain gardens 4.4 — the best-performing feature of all; and modelled peak flow reduction in a 100-year three-hour event runs 10–24% across three watersheds. Three consequences follow: a canopy credit against stormwater obligations gives private owners a financial reason to plant; the impact fee itself gets smaller and more defensible, because green infrastructure reduces the downstream capacity new development actually requires; and Tucson funds a \$3 million

annual programme from a utility charge of \$0.75 to \$1.50 a month — not from property tax. That is the funding model to study.

The Resident Water Bill Defense Project is the same argument from the other end. The cheapest gallon EPWater can deliver is the one nobody uses. Every supply-side answer — desalination, importation from Dell City, the Pure Water Center — is capital that lands in rates. Demand reduction defers that capital, and deferred capital is the most direct rate protection available.

If this share of trees replaces turf	Water saved	Per day	Comparison
25%	2.75B gal/yr	7.5 MGD	Larger than the reclaimed system
50%	5.51B gal/yr	15.1 MGD	Over half the desalination plant
100%	11.01B gal/yr	30.2 MGD	More than desal at max capacity

For scale: the Kay Bailey Hutchison plant produces up to 27.5 million gallons a day, and desalinated water is the most expensive water EPWater makes. A turf-to-canopy conversion carried out alongside this planting programme could save more water than the desalination plant produces — at a fraction of the cost, and while cooling the city. One hundred percent conversion will not happen; twenty-five percent is realistic and still exceeds the entire reclaimed system.

The rate protection argument writes itself: a utility that does not have to build the next supply project does not have to raise rates to pay for it. That is a stronger and more concrete case than opposing a rate increase after it has been proposed.

The 79.8-cent commitment — what this costs and how it stays neutral. A new programme is a cost against that commitment and has to be sourced honestly.

	Amount	Rate equivalent
Gross programme cost	\$1.2M–\$2.5M / yr	0.22–0.45 cents
Less tree mitigation fund (self-funding by design)	Variable	
Less stormwater programme (basins as flood control)	Variable	
Less grants and partner match	\$300K–\$1.0M	
Less reallocation of existing programmes	\$300K–\$600K	
Residual General Fund exposure	\$300K–\$600K / yr	0.05–0.11 cents

And the programme returns money to the same fund. The General Fund utilities line is \$24,328,461. Shade on city buildings, cool roofs at scheduled replacement, and turf conversion at city facilities plausibly cut it 2–4% — \$487,000 to \$973,000 a year, which covers the residual exposure and then some. The cool roof measures deliver that immediately; the tree shade takes a decade. Net effect on the rate commitment: neutral at worst, positive by the 2030s. Beyond the budget, the programme produces measured societal returns — about \$11.7 million a year in additional energy, stormwater, air quality and carbon value at 15% canopy, using El Paso’s own i-Tree assessment rather than figures borrowed from wetter cities. They are societal benefits, not budget revenue, and presenting them as revenue is the fastest way to lose a finance-literate audience.

Two tensions to name before someone else does. First: “no tax increase” is not “no cost to anyone.” A stormwater utility fee is legally a fee rather than a tax, and it is paid by property that generates runoff rather than by assessed value — but a resident opening a bill does not care about the distinction. Say what it costs and what it buys, in the same sentence, every time; Tucson’s comparable figure is \$0.75 to \$1.50 a month. Second: conservation reduces the revenue the utility collects, and utilities respond to falling volume by raising unit rates — the classic conservation paradox. The counter is that deferred supply capital is far larger than the lost volume revenue, which is why demand management is standard practice at every major arid-region utility.

13 — What the trees are worth

El Paso does not have to borrow benefit figures from Los Angeles or Atlanta. The 2014 i-Tree Eco assessment measured this city’s own urban forest from 201 randomly distributed field plots and priced what it delivers. Those numbers are far more defensible than a national average, and in one important respect far less flattering.

Annual functional value	Amount	Share	Physical measure
Energy savings and avoided power-plant carbon	\$3,080,000	50.9%	27,670 MWh net
Avoided stormwater runoff	\$2,190,000	36.2%	32.9M cu ft/yr
Carbon sequestration	\$529,000	8.7%	7,430 tons/yr
Air pollution removal	\$247,000	4.1%	318 tons/yr
TOTAL ANNUAL VALUE	\$6,046,000		

Annual functional value	Amount	Share	Physical measure
Structural (replacement) value of the forest	\$1.02 billion		1,281,000 trees
Carbon stored	\$6,610,000		92,800 tons

Two of those lines matter more than the others for this campaign. Energy is half the value — in a desert city, shade is money off a cooling bill, which connects directly to the Electric Ratepayer Protection Project. Stormwater is another third, which is the same argument Section 12 makes from the drainage side. Carbon and air quality, the benefits people assume dominate, together account for under 13%.

What 15% canopy would deliver. Scaling El Paso’s measured values by canopy area (a 2.94× multiplier — a labelled, defensible first approximation):

	At 5.1% today	At 15% canopy
Energy and avoided power-plant carbon	\$3,080,000	\$9,058,824
Avoided stormwater runoff	\$2,190,000	\$6,441,176
Carbon sequestration	\$529,000	\$1,555,882
Air pollution removal	\$247,000	\$726,471
TOTAL ANNUAL VALUE	\$6,046,000	\$17,782,353
Annual increment over today		\$11,736,353
Structural value of the forest	\$1.02 billion	~\$3.0 billion

The finding that should change what El Paso plants. El Paso’s trees produce about \$4.72 of annual benefit each. Los Angeles reports \$49 to \$60. The gap is not climate — it is species and size. A quarter of El Paso’s tree population is Italian cypress, which contributes 2.6% of the leaf area. Add Mexican fan palm and a third of the “trees” in this city produce 5.3% of the canopy. They are columns and poles. They are not shade.

Species	% of trees	% of leaf area	Leaf area per tree
Italian cypress	25.8%	2.6%	0.10× — a hedge, not a tree
Mexican fan palm	7.3%	2.7%	0.37×
Afghan pine	10.8%	18.1%	1.68×
Pecan	4.9%	9.0%	1.84×

Species	% of trees	% of leaf area	Leaf area per tree
Velvet ash	4.7%	12.3%	2.62×
White mulberry — state-listed invasive	5.9%	19.7%	3.34× — but the wrong tree

El Paso could roughly double the benefit of its next 100,000 trees without planting a single extra one, simply by specifying canopy class instead of tree count — which is exactly what the development code in Section 5 and the giveaway programme in Section 7 are written to do. Fifty-three percent of the existing population is under six inches in diameter. The city is not short of trees. It is short of shade.

What the assessment leaves out — and three figures that land in a room. The model excludes urban heat island mitigation (in El Paso, the headline benefit), heat illness and mortality (the human argument), desert grasses and shrubs (whose stormwater role is proportionately larger here), commercial cooling savings, and pedestrian and transit comfort — where the equity argument lives. And for a public audience: El Paso’s trees remove particulate matter equal to the annual PM10 emissions of 393,000 cars — roughly the city’s registered fleet; carbon stored in the urban forest equals the annual emissions of 28,000 single-family homes; and \$1.02 billion of replacement value is a capital asset the city has never inventoried, insured, or protected with an ordinance — which is the argument for the preservation measures in Section 8.

One risk to name: El Paso’s canopy is dangerously concentrated. Afghan and Aleppo pine together are about 12% of the population and roughly a quarter of the leaf area, and the assessment puts \$258 million of structural value at risk from sirex wood wasp and chalcid wasp — the latter already found on Afghan pine in El Paso in 2008. Emerald ash borer threatens 4.7% and \$78.1 million; Asian longhorned beetle 5.7% and \$21.4 million. And 15% of the tree population is state-listed invasive — white mulberry, tree of heaven, chinaberry, mimosa — producing a quarter of the city’s leaf area, with a fifth of El Paso’s shade coming from white mulberry alone, a species with well-known allergenic pollen. Species diversity requirements in the planting list are not botanical fussiness. They are how you avoid replacing a quarter of the canopy in one bad year.

How to use these numbers honestly: never call them revenue — not one dollar of the \$11.7 million arrives in the General Fund, and a finance-literate opponent will catch it instantly; lead with energy and stormwater, which are 87% of the measured value and connect to bills people actually pay; cite El Paso’s own study — a 2014 Davey Resource Group i-Tree Eco assessment of 201 plots, funded by a USDA Forest Service grant with Texas A&M Forest Service; say the baseline is eleven years old and

commission an update, because saying so first is what makes the rest trustworthy; and use the per-tree gap — \$4.72 against \$49 — as the species argument, because it is the most persuasive number in this document and it points at a fix that costs nothing.

14 — What 2030 actually delivers

Source	Low / yr	High / yr	4-year total
Development code	8,000	15,000	32,000–60,000
Giveaway and adopt-a-tree	10,000	20,000	40,000–80,000
Right-of-way, parks, schools	1,500	3,000	6,000–12,000
Partner and nonprofit plantings	1,000	3,000	4,000–12,000
TOTAL	20,500	41,000	82,000–164,000
Required to reach 15% canopy			1,029,293
Share of goal planted by 2030			8%–16%

To reach 15% by...	Trees per year	Feasibility
2040	75,000	Not credible
2045	54,000	Requires a step change
2050	43,000	Reachable if sustained
2060	30,000	Comfortable but slow

The first four seasons of this plan top out around 41,000 trees a year. Reaching 15% by 2050 therefore means sustaining roughly 43,000 a year for twenty-four years — achievable, but only if the code is doing most of the work and the giveaway programme runs at full scale from 2028 onward. There is no version where measured canopy approaches 15% by 2030, and a plan that implies otherwise will be dismantled by the first person who checks.

THE 2030 TEST

FIVE COMMITMENTS · ALL VERIFIABLE · NO CANOPY MIRAGE

1

The code is adopted. Canopy-class requirements, parking-lot shade standard, preservation and mitigation ordinance. Binary, verifiable, and the single most durable outcome.

2

A planting rate, not a canopy number. 40,000 trees a year by 2030, sustained — the rate that reaches 15% by 2050. Publish the count annually.

3

A survival rate. 80% at three years against a 70% national baseline — the number that separates a real programme from a photo opportunity.

4

Canopy re-measured. Commission an updated i-Tree or high-resolution assessment in 2030 — the 5.1% baseline dates from 2014.

5

The 2050 target stated openly. 15% by 2050 with the planting schedule published from the outset. Own the long horizon rather than hiding it.

There is no version where measured canopy approaches 15% by 2030 — and a plan that implies otherwise will be dismantled by the first person who checks.



Matthew James Kozik © 2026.

Political advertising paid for by the Matthew James Kozik Campaign, Hedyt Hernandez, Treasurer.