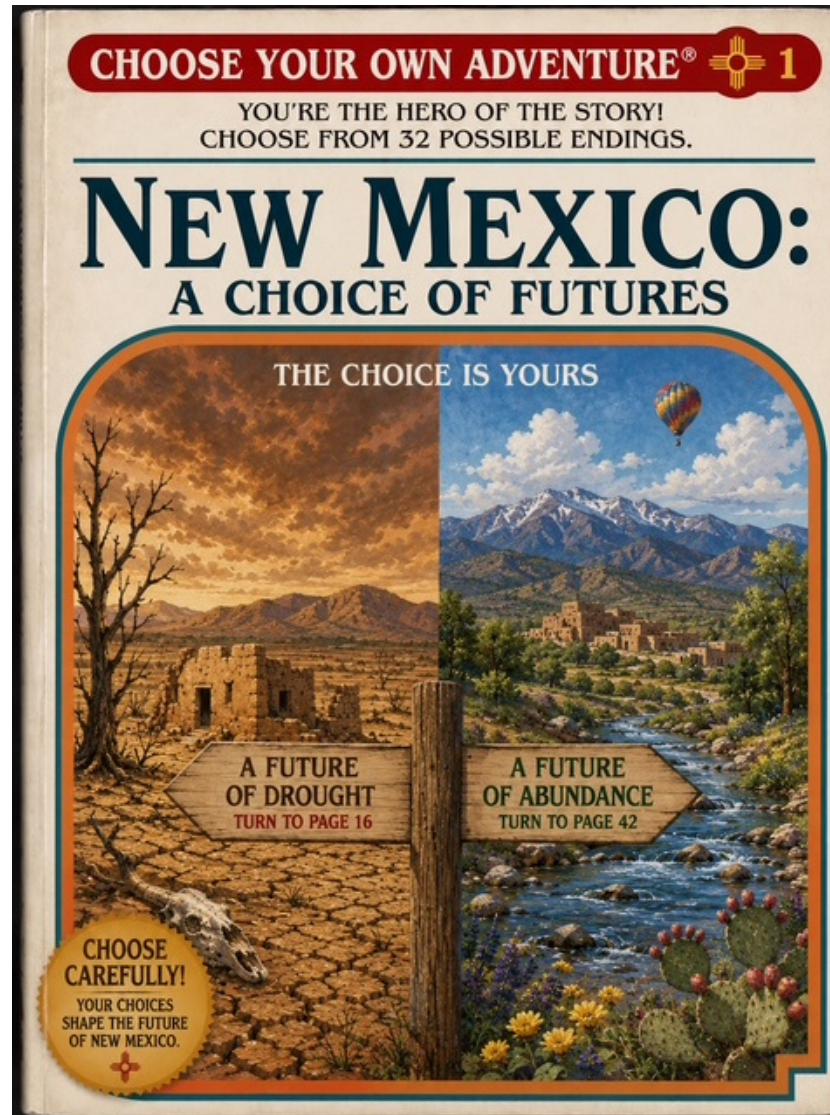




NMPWRC Meeting 06/10/26
New Water for New Mexico
Science, Scarcity and Solutions



We are at a crossroads



Water-stressed, compact-bound: New Mexico farmers face grim Rio Grande future

★ Follow Alaina Mencinger

By Alaina Mencinger amencinger@sfnewmexican.com Jan 18, 2026  0



SANTA FE  NEW MEXICAN

Combined Lea + Eddy County (Permian NM) Produced Water

Best consolidated estimate (peer-reviewed study)

- ~45.46 million m³ per year
- ≈ 286 million barrels per year
- ≈ 36,870 acre-feet/year nm

General Fund (core operating budget)

Recent actuals:

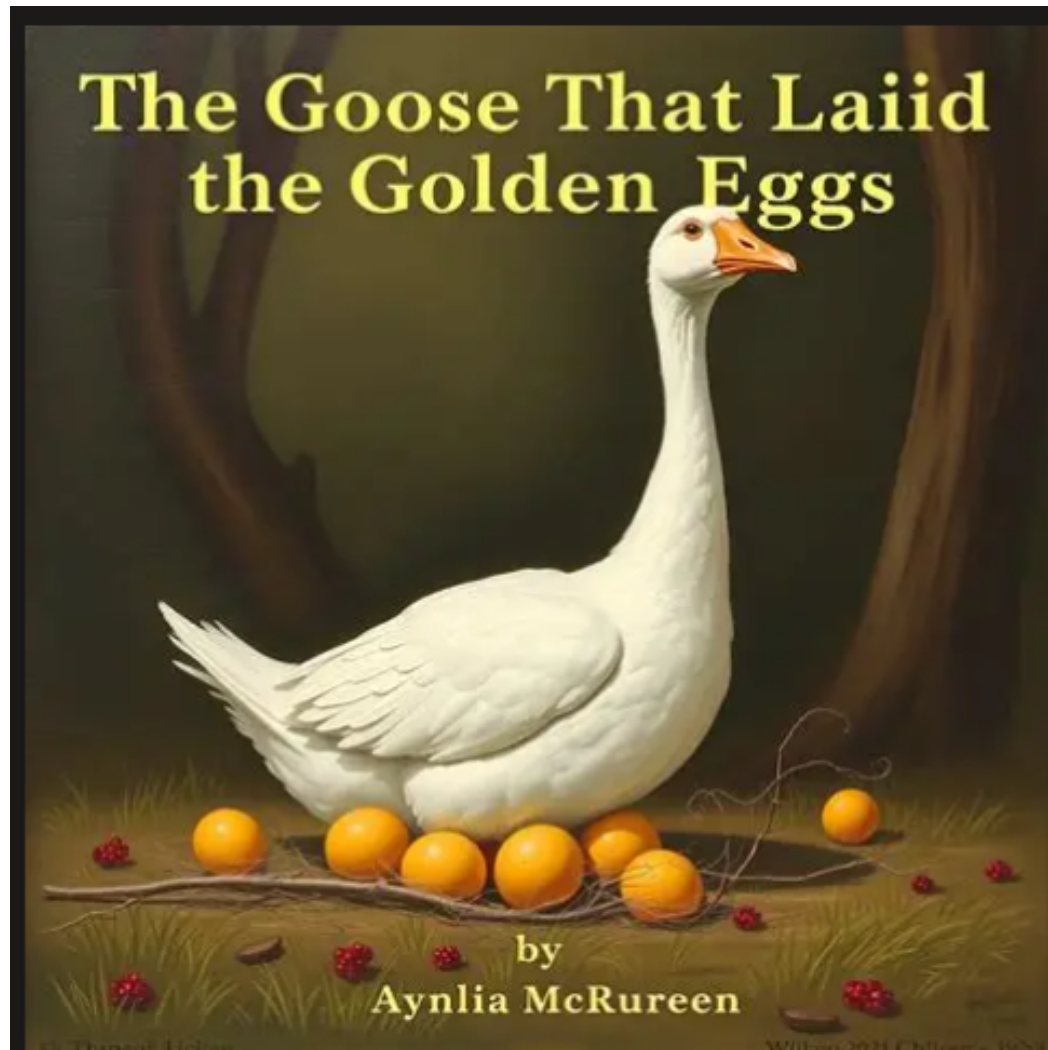
- ~48–50% of total General Fund revenue comes from oil & gas nmoga +1
- In FY2024:
 - 49% of General Fund from oil & gas nationbuilder

👉 This includes:

- severance taxes
- royalties (state & federal lands)
- related taxes and transfers

Operating vs total budget nuance

- ~36–42% of recurring operating revenue (day-to-day spending) ymaws +1



“Lack of Evidence”



**Produced Water Treatment Pilot Testing:
Water Quality Report**

April 17, 2026

“Lack of Evidence”



- 40 Scientific Papers
- 37 Presentations
- 10 Webinars

Performance Evaluation of a High Salinity Produced Water Treatment Train: Chemical Analysis and Aryl Hydrocarbon Activation

Brett D. Van Houghton, Jerry Liu, Mark J. Strynar, Treasure Bailey, Patricia R. Pfeiffer, David Jassby, J. Christopher Corton, James Rosenblum, and Tzahi Y. Cath*

Cite This: <https://doi.org/10.1021/acsestwater.3c00407>

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Article Recommendations

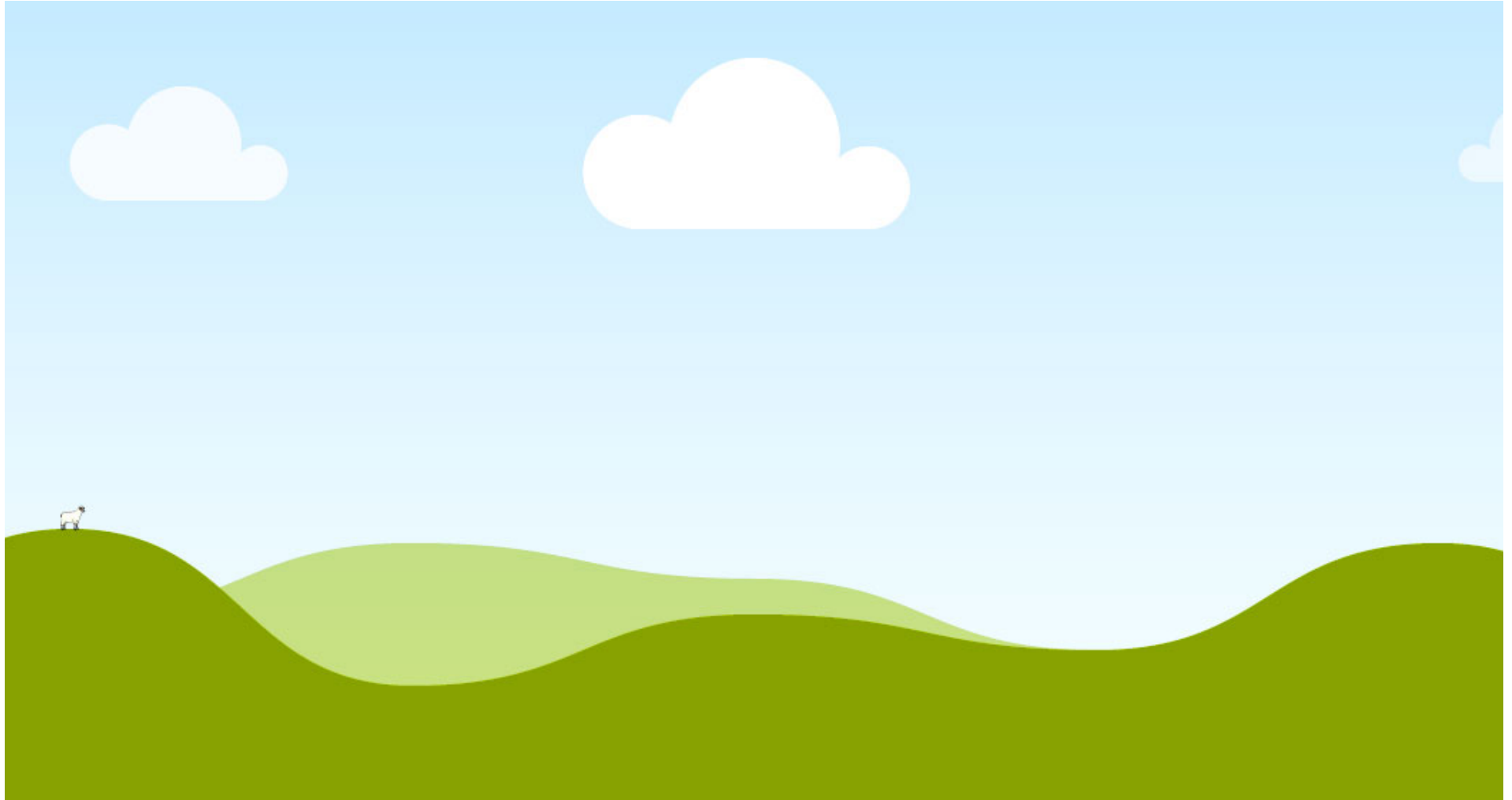
Supporting Information



ABSTRACT: Water scarcity and increased energy demands have put a strong focus on improving industries at the heart of the water–energy nexus. Treatment of oil and gas produced water (PW) can help reduce freshwater consumption during hydraulic fracturing, especially in arid regions, while also removing harmful contaminants from entering the environment. However, it is also difficult to treat because PW contains high concentrations of many environmentally toxic contaminants, which require complex and expensive treatment processes to achieve their removal. To demonstrate the possibility of PW treatment and reuse in the O&G industry, a comprehensive environmental toxicity and water quality analysis throughout a five-process treatment train was performed on high salinity (>120 g/L) Permian basin raw PW. The concentrations of naturally occurring radioactive materials were reduced by over 99%, total organic carbon was reduced by 93%, and inorganic constituents, including total dissolved solids, were reduced by over 99%. Compounds that induced the aryl hydrocarbon receptor and caused cytotoxicity in MCF-7 cells were also removed. Overall, the results of this study show that a short treatment train (five distinct unit processes) can be effective in treating PW to a level suitable for use outside of the oil industry.

KEYWORDS: produced water, membrane bioreactor, membrane distillation, desalination, toxicity, beneficial water reuse

“Lack of Evidence”



PART I – REQUIREMENTS FOR NPDES PERMITS

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

1. Final Effluent Limits – 5.0 MGD Design Flow

During the period beginning the effective date of the permit and lasting until the expiration date of the permit, the permittee is authorized to discharge treated municipal wastewater to Pecos River in Segment Number 20.6.4.202 of the Pecos River basin from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

POLLUTANT (*1)	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	DAILY MAX	7-DAY AVG	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	N/A	N/A	N/A	N/A	Daily	Totalizing Meter
Biochemical Oxygen Demand, 5-day (BOD ₅) Effluent	293 lbs/day	N/A	710 lbs/day	7 mg/L	N/A	17 mg/L	Once/Week (*7)	24-Hour Composite
Biochemical Oxygen Demand, 5-day (BOD ₅) Influent	Report	N/A	Report	N/A	N/A	N/A	Once/Week (*7)	24-Hour Composite
BOD ₅ , Percent removal (minimum)	≥ 85% (*2)	N/A	N/A	N/A	N/A	N/A	Once/Week	Calculation (*2)
Total Suspended Solids (TSS) - Effluent	1252 lbs/day	N/A	1878 lbs/day	30 mg/L	N/A	45 mg/L	Once/Week (*7)	24-Hour Composite
Total Suspended Solids (TSS) - Influent	Report	N/A	Report	N/A	N/A	N/A	Once/Week (*7)	24-Hour Composite
TSS, Percent removal, (minimum)	≥ 85% (*2)	N/A	N/A	N/A	N/A	N/A	Once/Week	Calculation (*2)
E. coli Bacteria	N/A	N/A	N/A	126 (*3)	410 (*3)	N/A	Once/Week	Grab
Total Residual Chlorine	N/A	N/A	N/A	N/A	11 µg/l	N/A	Daily	Grab (*4)

POLLUTANT	DISCHARGE LIMITATIONS MINIMUM	DISCHARGE LIMITATIONS MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	6.6 Standard Units	9.0 Standard Units	Daily	Grab

NPDES PERMIT No. NM0022292

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS.

Final Effluent limits – 13 MGD Design Flow

During the period beginning the effective date of this permit and lasting through the expiration date of this permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater to the Santa Fe River, in Segment Number 20.6.4.113, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Standard Units			
	POLLUTANT	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY
pH	6.6	9	Daily	Instantaneous Grab

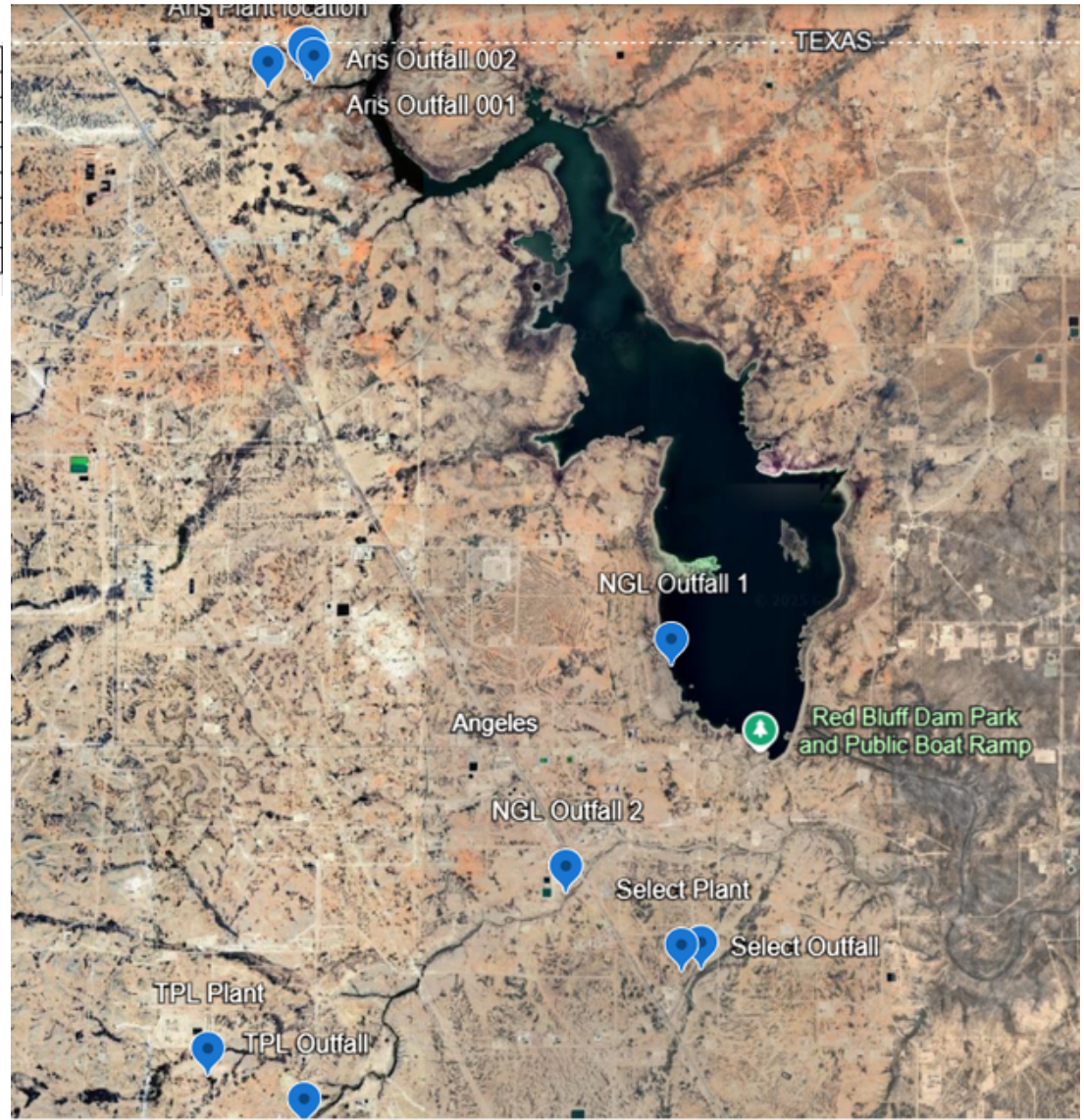
EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	lbs/day, unless noted			mg/l, unless noted (*1)				
POLLUTANT	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	7-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	Report MGD	***	***	***	Daily	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	709 (*2)	N/A	Report	10	15	N/A	3/Week	24-Hr Composite
Total Suspended Solids	2127(*2)	N/A	Report	30	45	N/A	3/Week	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (5-day) % removal, minimum	≥ 85%	---	---	---	---	---	1/Week	Calculation (*6)
Total Suspended Solids % removal, minimum	≥ 85%	---	---	---	---	---	1/Week	Calculation (*6)
E. coli Bacteria	N/A	N/A	N/A	126(*3)	N/A	410(*3)	3/Week	Grab
Total Phosphorous	108	Report	N/A	3.1	N/A	Report	3/Month	24-Hr Composite (*7)
Total Nitrogen	265	Report	N/A	6.9	N/A	Report	3/Month	24-Hr Composite(*7)
Dissolved Oxygen	Report	N/A	N/A	Minimum 5 mg/l			Daily	Instantaneous Grab
Total Residual Chlorine	N/A	N/A	N/A	N/A	N/A	11 ug/l (*4)	Daily	Instantaneous Grab

Texas Projects

Applicant	TCEQ Permit ID	Discharge Vol bbl	CFS
Aris	WQ0005474000	238,095	15.5
Aris	WQ0005471000	238,095	15.5
Texas Pacific Water Resources	WQ0005454000	65,000	4.2
Select	WQ0005495000	100,000	6.5
NGL PHASE 1	WQ0005445000	15,476	1.0
NGL PHASE 2		35,714	2.3
NGL PHASE 3		238,095	15.5
NGL PHASE 4		459,524	29.9
		1,100,714	71.5

52K Acre feet/ yr

The majority of which by the way
Is NMPW





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