

Landscaping Group

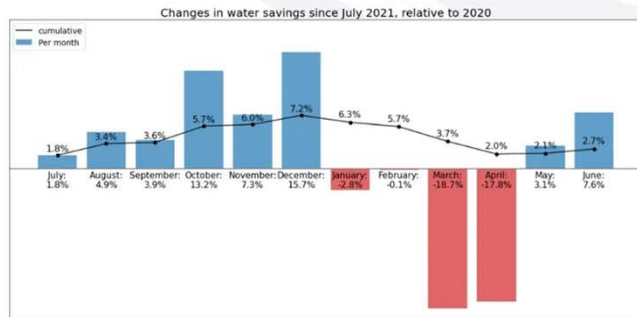
August 16, 2022 Meeting

Water Resilience Portfolio – State of CA (Aug 11)

- “Gov. Gavin Newsom released a new state water plan last Thursday that calls for increasing water storage, stepping up water recycling, capturing stormwater runoff and building more desalination plants.”
- Newsom released a [19-page plan](#) Increasing efforts to increase water supply
- Capture more water in wet years to save for dry years
- Included:
 - Increasing stormwater capture 77% by 2030
 - Raising the height of the dam at San Luis Reservoir east of Hollister
 - Fast-tracking seven storage projects that have funding approved from Proposition 1, a 2014 water bond, such as [raising the height of the dam at Los Vaqueros Reservoir in Contra Costa County](#)
 - Building a huge new [\\$3.9 billion project, Sites Reservoir, in Colusa County](#).
- **Storm run off:** Newsom said the plan capitalizes on existing resources, including expanding supply by 4 million acre-feet to create room to capture more water that now flows out to sea in large storms.
- **Reservoirs:** The plan calls for expanding the capacities of 120 reservoirs throughout the state.
- **Underground storage:** But it also counts on underground water storage to replenish depleted groundwater supplies, particularly in the San Joaquin Valley, where so much water has been taken from the aquifers that the ground is sinking.
- The plan also calls for eliminating water waste by 500,000 acre-feet in urban areas and modernizing water management and forecasting plans, including reforming water rights.
- [City of Antioch: Constructing \\$110 million brackish desalination plant to convert salty water](#) from Sacramento-San Joaquin River Delta into enough freshwater to cover about 30% of the city’s annual needs.

Water Savings- California and Bay Area (Aug 2)

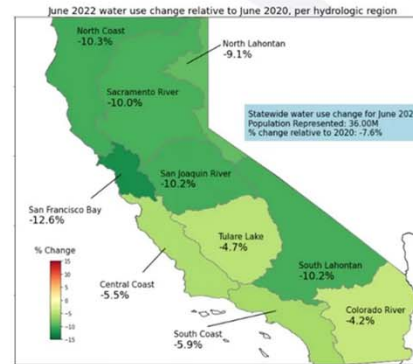
Statewide savings for June 2022



• **June 2022:**
7.6% savings relative to June 2020

• **July 2021 to June 2022:**
2.7% cumulative savings relative to 2020

Regional changes for June



Hydrologic Region	Percent of State Population	Percent change from 2020
San Francisco Bay	18.0%	-12.6%
North Coast	1.1%	-10.3%
San Joaquin River	4.6%	-10.2%
South Lahontan	2.3%	-10.2%
Sacramento River	7.7%	-10.0%
North Lahontan	0.3%	-9.1%
South Coast	55.1%	-5.9%
Central Coast	3.5%	-5.5%
Tulare Lake	5.4%	-4.7%
Colorado River	2.1%	-4.2%
STATEWIDE		-7.6%

California's urban water use dropped 7.6% in June 2022 compared with June 2020, according to new data from the State Water Resources Control Board released on Aug. 2, 2022. (Source: SWRCB)

Source: Mercury News article 8/2/22:

California drought: Water conservation increasing statewide, Bay Area saving more than Southern California

Statewide urban water use fell 7.6% in June, short of Gov. Gavin Newsom's 15% target, but double the savings in May

Major agencies' water use in June, compared with June 2020:

- Santa Clara Valley Water District: -15%
- San Jose Water Company: - 17.5%
- East Bay Municipal Utility District: -12.2%
- Contra Costa Water District: -11.2%
- San Francisco PUC: - 5.7%
- Alameda County Water District: -13.2%
- Marin Municipal Utility District: -25.3%
- City of Sacramento: -11.3%
- Los Angeles Department of Water and Power: -7.5%
- City of San Diego: +4.1%
- (San Mateo County was not listed...)

Pool cover – liquid film option (exploration)

- New technique is liquid solar
- Disperses into thin film across pool
- Substance: (not clear)
- Biodegradable
- U.S. Patent #8,021,545 B2
- U.S. Patent #7,763,178 B1

Example on Amazon:

https://www.amazon.com/Auqapill-AP72-SolarPill-4/dp/B0019BNWVl/ref=sr_1_7?ie=UTF8&qid=1459178060&sr=8-7&keywords=liquid+pool+covers



<https://www.freepatentsonline.com/8021545.html>

Biodegradable surface layer film for pools or spas to prevent ...

United States **Patent 8021545** . Abstract: The present invention relates to swimming pools and other pools of standing water, and in particular to a dispensing unit that distributes a chemical solution that reduces evaporation and heat loss by forming a film or monomolecular layer over the surface or substantial surface area of the swimming pool ...

Pool cover – liquid option

In order to create a film or monomolecular layer over the surface area of the swimming pool or spa, the delivery capsule would be filled with a solution which upon release due to the action of the water in the pool or spa previously described, would create an invisible, ultra-thin layer or film of a possibly monomolecular, non-toxic, biodegradable film, which would prevent evaporation and heat loss, and maintain the level of chemicals in the pool or spa.

The solution contained in the delivery capsule in order to create the film or monomolecular layer over the surface or substantial surface area of the swimming pool, spa, or other water pool, would include as a minimum, an evaporative inhibitor in a carrier or medium such as water or deionized, filtered water. The evaporative inhibitor would be present in a range of from 1 percent to 8 percent and the carrier or medium such as water or deionized, filtered water would be present in a range of from 92 percent to 99 percent. A suitable evaporative inhibitor for use in the solution would be cetyl alcohol.

Additional constituents for the solution could also include non-ionic emulsifiers which would improve the performance of the solution. Suitable non-ionic emulsifiers include poly-oxy-ethylene (20) sorbitan monolaurate in a range of from 0.10 percent to 4.0 percent and which is sold under the brand name Tween 20. Another non-ionic emulsifier, also suitable for use and inclusion, would sorbitan monopalmitate in a range of from 0.10 percent to 4.0 percent, and which is sold under the brand name Span 40. A still further suitable non-ionic emulsifier would be poly-oxy-ethylene (20 cetyl ether) in a range of from 0.10 percent to 4.0 percent and sold under the brand name Brij 58.

In addition to the foregoing, certain stabilizers may be desired with respect to the solution and the constituents thereof. Suitable preservatives include propylene glycol at a maximum weight percentage of 2.0 percent, methyl paraben at a maximum weight percent of 0.15 percent, and propyl paraben at a maximum weight percent of 0.05 percent. The preservatives should, if utilized, be utilized as close to their maximum values as possible in order to not adversely affect the viscosity of the solution.

Additionally, an anti-foam may be utilized to aid in the formulation process for a more effective filling of the delivery capsule. An silicone anti-foam in a weight percentage range of 0.10 percent to 4.0 percent has been found to be effective.

An invisible, ultra-thin, preferably monomolecular layer or film may be formed over the surface of a swimming pool, spa, or other water pool to provide for an invisible layer of non-toxic, biodegradable film which would prevent evaporation and heat loss and maintain the level of chemicals in the pool or spa through the use of a solution contained in the delivery capsule, which delivery solution includes water, deionized, filtered water, and cetyl alcohol in the ranges first mentioned above. The additional constituents mentioned above may be added to the cetyl alcohol water solution to improve its performance.

The preferred formulation for the solution disbursed from the delivery capsule would be as follows by weight percent.

In this preferred formulation embodiment, depending upon the size of the pool, the delivery capsule will disburse the formulation to form the invisible layer of non-toxic, biodegradable film, which will prevent evaporation and heat loss. While the preferred embodiment has been stated above, it has been found that the constituents of the formulation may fall within the following ranges and still provide for an invisible layer of non-toxic, biodegradable film, which achieves the results desired.

Testing and experience has determined that depending upon the size of the dispenser and its contents, it will take approximately up to 7-10 days under normal conditions to totally dispense the contents and form the evaporative inhibiting film. A non-toxic dye may be utilized as an indicator of total dispersion.

The dispensed solution and resultant evaporating inhibitive film would have an effective life of up to two months, depending upon agitation. If the pool or spa is agitated through ordinary use, the film will be disrupted but will reform upon cessation of use and agitation for the time prescribed. The more agitation or disruption per period of time will result in less efficacy.

Therefore, while the present invention has been disclosed with respect to the preferred embodiments thereof, it will be recognized by those of ordinary skill in the art that various changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore manifestly intended that the invention be limited only by the claims and the equivalence thereof.

Pool cover – liquid option

The preferred formulation for the solution disbursed from the delivery capsule would be as follows by weight percent.

Deionized water	93.1%
Propylene Glycol	2.0%
Methyl paraben	0.15%
Tween 20 (polysorbate 20)	0.2%
Cetyl alcohol	4.0%
Span 40	0.20%
Brij 58	0.20%
Antifoamant>>>>>>	0.10%
Propyl paraben	0.05%



Survey to all Residents – (Sept) - suggestion

- Suggest we field a survey Sept to all residents on hot topics to understand preferences
- Use SurveyMonkey or similar (online) – cheap/fast/easy survey software
- For people who cannot do computer work: a few people can turn in paper and we can consolidate it in digitally (enter the info for them into digital survey)
- Topics to cover in the questionnaire: (work with Board to get all topics in there)
 - Lawn Strategy (Keep green (and sacrifice elsewhere); Zones; meadow option)
 - Ivy / Mulch – ground cover
 - Amount of water savings desired : Meet local mandates vs Cut Deeper
 - Need for a long term plan?
 - Landscape architect? ?
 - Courtyard landscaping/uses
 - Front of buildings
 - Options: Firepit or bocce ball or more tables option
 - Awning idea (outside of Commons Room) – shade and water capture
 - Use of rim on edge of property
 - Other?
 - Other?
 - Other?