Kansas Water Authority Meeting
December 14-15, 2022
Colby, Kansas

Wednesday, December 14, 2022
Agenda

Time	*Agenda Item*	*Presenter*	*KWA Advice*	*KWA Decision*	*Page No.*
2:00 pm	**Call to Order/Roll Call**	Dawn Buehler	--	--	--
2:05 pm	**Approval of Meeting Minutes**				--
	October 19, 2022 Meeting	Dawn Buehler		X	2
2:10 pm	**KWA Public Water Supply Committee**	John Bailey			6
	CY2023 Surplus Water Report	Richard Rockel		X	8
2:30 pm	**KWA Ogallala Aquifer Committee**	Dawn Buehler			--
	KWA Policy Recommendations for Ogallala Aquifer	Matt Unruh		X	45
3:30 pm	**BREAK**				--
3:45 pm	**KWA Annual Report to Governor & Legislature**	Victoria Potts		X	47
4:45 pm	**Day 1 Wrap Up & Adjourn**	Dawn Buehler			--

Thursday, December 15, 2022
Agenda

Time	*Agenda Item*	*Presenter*	*KWA Advice*	*KWA Decision*	*Page No.*
8:30 am	**Call to Order/Roll Call**	Dawn Buehler	--	--	--
8:35 am	**KWA RAC Operations Committee**	Jeremiah Hobbs			--
	RAC Membership			X	48
	RAC Messages to the KWA			X	49
9:20 am	**Legislative Update**	Victoria Potts			--
9:30 am	**WaterWise Update**	Weston McCary			--
10:00 am	**BREAK**				--
10:15 am	**GMD 4 & 1 Water Conservation Success Stories**	Shannon Kenyon Katie Durham			--
11:00 am	**KWA Ex Officio Agency Updates**	Dawn Buehler			--
11:30 am	**Director's Report**	Connie Owen			--
11:40 am	**New Business**	Dawn Buehler			--
11:45 am	**Adjourn**	Dawn Buehler			--

Upcoming Meetings:

- *January 24-25, 2023 – Kansas Water Authority, Topeka*
- *April 19, 2023 – Kansas Water Authority, TBD*
- *June 7, 2023 – Kansas Water Authority, Southwest Kansas (KGS Field Conference)*
- *August 23, 2023 – Kansas Water Authority, TBD*
- *October 18, 2023 – Kansas Water Authority, TBD*
- *December 13, 2023 – Kansas Water Authority, TBD*

Minutes

KANSAS WATER AUTHORITY

October 19, 2022 **In-Person Meeting** **Sedgwick, KS**

CALL TO ORDER: Chair **Dawn Buehler** called the **October 19, 2022,** Kansas Water Authority (KWA) meeting held in-person to order at **09:09 a.m.**

MEMBERS PRESENT: Dawn Buehler, Michael Armstrong, John Bailey, Randy Hayzlett, Jeremiah Hobbs, Pete Loecke, Carolyn McGinn, Jean Steiner, David Stroberg

MEMBERS ABSENT: Lynn Goossen, Alan King, Allen Roth, Allan Soetaert

EX-OFFICIO MEMBERS PRESENT: David Bollenback, Earl Lewis, Jay Kalbas, Susan Metzger, John Beckman, Sara Baer, Tom Stiles, Andrew Lyon, Kayla Savage, Connie Owen,

EX-OFFICIO MEMBERS ABSENT: Mike Beam

APPROVAL OF MINUTES:

Motion No. 10-19-01 It was moved by **David Stroberg** and seconded by **Randy Hayzlett** to approve the August 10, 2022, Minutes for the Special Meeting on Water Policy Discussion & August 17, 2022, Minutes for the Regular Meeting of the Kansas Water Authority **Motion carried with no dissenting votes.** Information found in meeting materials.

KWA PWS COMMITTEE:

John Bailey & Nathan Westrup gave a presentation for the Public Water Supply (PWS) Committee and what goes into considering Water Purchasing Contracts. **Dawn Buehler** opened the floor for questions and comments. Variable Rates were discussed.

Water Purchasing Contract 17-2

Motion No. 10-19-02 It was moved by **Jeremiah Hobbs** and seconded by **Mike Armstrong** to approve the amendment for Water Purchasing Contract 17-2 with Wolf Creek Nuclear Generating Station. **Motion carried with no dissenting votes.** Information found in meeting materials.

Nathan Westrup then gave update on drought status and reservoir operations.

Dawn Buehler opened the floor for discussion. The Authority discussed if Kansas would be required to release water from our reservoirs in order to keep flows in the Mississippi Valley, draw downs from the Army Corps of Engineers on the Kansas Reservoirs, water contracts with the Army Corps of Engineers now that we have paid off debt, and if long term vision will be part of the decision-making process regarding drought.

Nathan Westrup then gave update on Capital Development Plan.

John Bailey spoke about funding for sediment control.

Dawn Buehler opened the floor for discussion. John Beckman spoke about work Kansas Wildlife and Parks is doing to prevent/slow sediment capture. The Authority also discussed if there was any overlap between this issue and Kansas River Reservoirs Flood and

Sediment Study.

KWA RAC OPERATIONS COMMITTEE:

Jeremiah Hobbs gave an update on the KWA RAC Operations Committee. He spoke about the continuation of membership for Keli Harbiger for the Solomon-Republican RAC and about a membership application they received for the Cimarron Regional Advisory Committee. He then spoke about a message they received from the Missouri Regional Advisory Committee. He said they will review it at their next KWA RAC Operations Committee Meeting and bring it to the Kansas Water Authority after that.

*Application for Cimarron RAC and membership of Keli Harbiger's membership***:**

Motion No. 10-19-03 It was moved by **David Stroberg** and seconded by **Jean Steiner** to approve the application of Andrew Moser to the Cimarron RAC in the Agriculture (cc) category and to approve the continuation of membership for Keli Habiger on the Solomon-Republican RAC and. **Motion carried with no dissenting votes.** Information found in meeting materials.

Jordan Martincich & Rob Manes gave a presentation form Kansas for Conservation. They spoke about what their plan and goals are as well us funding needs.

Dawn Buehler opened the floor for discussion. The Authority spoke about if the $50,000,000.00 (mentioned in the Blue-Ribbon Task Force) was still a relevant number to complete necessary projects in today's standards, they went over acronym page from presentation, discussed rather there was political support, and who would be managing any fund that were received by the group. The Authority spoke about how it would be beneficial to have a coordinated plan/proposal to show has this would be beneficially for Kansas. They wrapped up the discussion by speaking about a potential federal funding source called Watershed Awareness to Watershed Action (WAWA).

KWA BUDGET COMMITTEE:

Michael Armstrong presented on the FY 2024 budget. Then, **Matt Unruh** presented on the FY 2024 State Water Plan Fund budget.
Dawn Buehler opened the floor for discussion. Discussion was had about every agency's enhancements.

KANSAS WATER AUTHORITY MEETING ON WATER POLICY DISCUSSION:

Dawn Buehler gave an update on the Kansas Water Plan and Water Policy Discussion. It was suggested that we need to update the Blue-Ribbon Task Force list as well as look at design standards for stormwater as the traditional "100-500-1000" year storm is becoming more and more unreliable.

Matt Unruh gave a legislative update starting with the Special Committee on Water that took place in August. He opened the floor to any members of the Authority that also presented at the meeting. **Jay Kalbas** spoke about was the Kansas Geological Survey (KGS) presented. **Andrew Lyon** spoke about his experience and the aftermath he has experienced.

Matt Unruh then gave an update on Legislative Budget Committee and the

Kansas Water Office's presentation to them on September 20, 2022.

Matt Unruh spoke about annual report to the Governor and legislative discussion. Items that were discussed

- Making sure it is communicated the importance of water to citizens of Kansas
- Re-articulating what the Regional Advisory Committee's charge is to the KWA
- How stretched the budget is and if fully funding the State Water Plan Fund in report or if it gets brought up at all
- Updating the Blue-Ribbon Task Force Fund number.
- Show projects that are getting done and what their outcomes are
- Do we make a policy and/or position statement?
- Drought would be a good topic for this
- What lack of funding is doing
- Emerging issues list may be overwhelming, may need to think about packaging.
- Suggested making a sustainability report
- Environmental justice

FEDERAL UPDATE

Josh Olson presented on potential Planning Assistance to States (PAS) Agreements between the Kansas Water Office and the U.S. Army Corps of Engineers.

*Director of the Kansas Water Office to enter into PAS agreements with the U.S. Army Corps of Engineers***:**

Motion No. 10-19-04 It was moved by **Jean Steiner** and seconded by **Mike Armstrong** to give approval to the Director of the Kansas Water Office to enter into PAS Agreement(s) with the U.S. Army Corps of Engineers. **Motion carried with no dissenting votes.** Information found in meeting materials.

Laura Totten presented on Kansas River Reservoirs Flood and Sediment Study.

KANSAS WATER SUCCESS STORY:

Sarah Sexton Bowser gave a presentation on a Kansas Water Success Story. She presented on Sorghum in Kansas. Specifically, on getting water use plant traits ingrained in sorghum plants.

AGENCY UPDATES:

Andy Lyon gave an update for the Department of Conservation.

David Bollenback gave report from the Kansas Corporation Commission.

Earl Lewis gave an update for the Division of Water Resources.

Leo Henning gave an update for the Kansas Department of Health and Environment.

Kayla Savage gave update from the Kansas Department of Commerce.

Jay Kalbas gave an update for the Kansas Geological Survey.

Susan Metzger gave an update for the Kansas State University.

John Beckman gave an update from the Kansas Department of Wildlife and Parks

DIRECTORS REPORT: **Connie Owen** gave a Director's Report from the Kansas Water Office.

NEW BUSINESS: **Jean Steiner** suggested making a short-term committee to look at research coordination.

ADJOURNMENT: **Dawn Buehler** adjourned the meeting at **3:09 p.m.**

Dawn Buehler, Chair

Connie Owen, Secretary

MEMO

Kansas Water Office
900 SW Jackson Suite 404
Topeka, KS 66612
Phone: (785) 296-3185
Fax: (785) 296-0878
www.kwo.ks.gov

DATE: December 05, 2022
TO: Kansas Water Authority
FROM: John Bailey, Chair, Public Water Supply Committee
Nathan Westrup
RE: Public Water Supply Committee Update

Item Proposed for Action:

- Consider approval of the CY2023 Surplus Water Report

Surplus Water Available in Water Marketing Program Lakes, Calendar Year 2023 (Surplus Water Report)
Approval of this report by the KWA gives the Director the permission to enter into contracts for water considered to be surplus during the calendar year. The Calendar Year (CY) 2023 Surplus Report includes the changes made annually to the report. Kansas Water Office staff provided the draft 2023 Surplus Water Report to the Committee at the December 5th meeting for review. The draft report is included in the mailing materials.

The Public Water Supply Committee recommends the Kansas Water Authority approve the Surplus Water Available in Water Marketing Program Lakes, Calendar Year 2023 report and authorize the Director to enter into surplus water supply contracts for water defined to be surplus by the report.

Non-Action agenda items:

Public Water Supply Committee membership – Introductions and discussion of representative categories
Voting members – John Bailey (Chair), Alan King, Allan Soetaert, Pete Loecke (new member)
Advisory members – John Gilroy, Jared Morrison, Matt Stiles

Workplan updates
The committee was given an update of upcoming action items identified in the workplan, see workplan table on reverse side of this memo.

Drought operations update – As part of the presentation of the Surplus Report. Drought is persisting and reservoir operations are on-going to support system demands.

Status update for awareness

Task	Committee Action Required	Status	Calendar Year 2022												Calendar Year 2023												Calendar Year 2024												Calendar Year 2025											
			1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Water Purchase Contracts (WPC)																																																
City of Marion																																																
WPC 81-4		Active	Expires on 10/3/2023																					X																									
Anticipated Renewal Application																																																
Request to negotiate	X																																															
Negotiations																																																
Contract Approval	X																																															
City of Coffeyville																																																
WPC 81-5		Active	Expires on 12/16/2023																								X																						
Anticipated Renewal Application																																																
Request to negotiate	X																																															
Negotiations																																																
Contract Approval	X																																															
City of Emporia																																																
WPC 81-2		Active	Expires on 10/21/2023																					X																									
Two potential options (Emporia's decision)			**Emporia is evaluating the renewal of their Water Purchase Contract vs the purchase of additional Water Assurance District storage.**																																														
Option 1: Renewal Application															*(If Emporia choses to remain a Water Marketing customer)*																																					
Request to negotiate	X																																															
Negotiations																																																
Contract Approval	X																																															
Option 2: Additional WAD storage	(Awareness)		*(If Emporia choses to leave the Marketing Program, additional Assurance storage will need to be purchased)*																																													
KWO system modeling																																																
WAD storage contract amendment																																																
Water Marketing Program - Financials																																																
Update Capital Development Plan (CDP)	(Advice)	In Progress																																														
Draft CDP	(Advice)																																															
Draft CDP	(Advice)																																															
Approve CDP	X																																															
Set Water Marketing Rate	X	Annual																																															
Surplus Water Report	X	Annual																																															

Surplus Water Available in Water Marketing Program Lakes Calendar Year 2023

Kansas Water Office

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Introduction

Surplus water is defined as waters within the conservation water supply capacity committed to the State, but not required to meet contractual requirements. Water in this storage may be sold under short term contracts if it is found to be surplus, is determined to be in the public interest, and if the contract will advance the purposes of the State Water Resource Planning Act.

This report for Calendar Year 2023, as approved by the Kansas Water Authority, constitutes the finding that the waters so indicated in the report are surplus (IPM-12).

The report will be used as guidance to the Director of the Kansas Water Office in contracting for surplus waters for calendar year 2023. The surplus yield identified in this report is a starting point in determining whether the Office should enter into a surplus water marketing contract. At the time an application for a surplus contract is submitted, the Director will also consider:

- Pending applications that are actively being pursued by an applicant which may result in water being committed to a user in the near future
- The impact of the adopted lake level management plan
- The existence of drought conditions and the effect of the drought on water in storage
- Any other information that could be used in the determination of the public interest.

Surplus Water Available in 2023

Statute limits the amount of water that can be provided as surplus water in any one calendar year to 10% of the water supply yield capability, unless the Governor has declared an emergency which affects the public, health, safety or welfare. Surplus Yield is the yield associated with water supply storage that is not committed to another user for that year. The Surplus Yield Available for Contract is the amount of Surplus Yield associated with in-service storage, limited to 10% of the Water Supply Yield. Additional limitations may be applied if the system model results indicate less yield than the individual reservoir models.

Summary Table

Lake	Water Supply Yield		Surplus Yield in 2023		Surplus Yield Available for Contract	
	mgd	Af/yr	mgd	Af/yr	mgd	Af/yr
Big Hill (Pearson-Skubitz)	7.9	8,892	6.7	7,496	0.8	889
Clinton	17.9	20,019	2.0	2,221	0.0	0
Council Grove	8.2	9,246	3.5	3,932	0.8	925
Elk City	13.4	15,035	9.7	10,836	1.3	1,503
Hillsdale	15.4	17,311	1.1	1,198	0.0	0
John Redmond	29.7	33,311	1.3	1,448	0.0	0
Kanopolis	8.3	9,270	2.9	3,222	0.8	927
Marion	5.1	5,668	3.4	3,797	0.5	567
Melvern	8.6	9,616	5.0	5,652	0.9	962
Milford	107.6	120,592	67.9	76,085	0.0	0
Perry	74.6	83,603	62.2	69,666	0.0	0
Pomona	7.7	8,628	5.1	5,697	0.8	863
Toronto	4.5	5,082	4.5	5,082	0.1	118
Tuttle Creek	160.5	179,926	27.8	31,129	16.1	17,993

Explanation of Yield Changes from CY 2022 Surplus Report

The primary difference between the water supply yields of this report and the previous year's report is due to the application of an additional year of sediment accumulation in each reservoir. The annual sedimentation rate at each reservoir is published online by the Kansas Water Office and establishes the annual volumetric reduction to the reservoirs listed in this surplus report. New bathymetric surveys may reveal changes to the historic sedimentation rates. In addition to the impact of annual sediment accumulation on yield, operational changes can impact yield. Additionally, KWO strives to use the best available information in the yield models and model revisions are necessary from time to time. The changes from 2022 to 2023 are summarized in the table below.

Yield Changes From 2022 Surplus Report

Lake	2022 Yield (MGD)	2023 Yield (MGD)	% Change from 2022	Comment
Big Hill (Pearson-Skubitz)	8.0	7.9	-0.8%	
Clinton	18.0	17.9	-0.8%	
Council Grove	8.3	8.2	-0.6%	
Elk City	13.7	13.4	-2.1%	
Hillsdale	15.5	15.4	-0.4%	
John Redmond	30.2	29.7	-1.6%	
Kanopolis	8.4	8.3	-1.5%	
Marion	5.0	5.1	1.1%	Updates to volume table.
Melvern	8.6	8.6	-0.2%	
Milford	107.8	107.6	-0.2%	
Perry	75.4	74.6	-1.1%	
Pomona	7.8	7.7	-1.3%	
Toronto	4.6	4.5	-1.4%	
Tuttle Creek	163.5	160.5	-1.8%	

Yields units are million gallons/day (MGD)

Drought Condition Contingency

The Kansas Water Office has the statutory responsibility to advise the Governor on drought conditions and coordinates the Governor's drought response team. The Drought Monitoring Program collects climate data from a variety of sources, monitors drought activities and publishes a drought report during periods of drought. **The impact of drought conditions on reservoir storage will be evaluated at the time a surplus contract is being considered. Prior to entering into a surplus contract, the Kansas Water Office will review current drought conditions, declarations and forecasts. Conditions that may warrant declining a new surplus contract include: extended below normal precipitation; below normal streamflow in the river basin; concern about percent of storage remaining in the conservation pool and low probability of refill based on historic record**.

Explanation of Reservoir Tables

Table 1 - Conservation Storage Break Out

Table 1 for each reservoir separates the conservation storage into various components. The conservation storage is used for multiple purposes, which are identified in Table 1 and the pie charts as Water Quality, Other/Local and Water Supply.

The Water Quality pool is utilized to make established minimum releases which are intended to maintain flow in the stream below the lake. The Corps retains ownership of this storage.

The Other/Local pool includes storage that has been contracted by the Corps of Engineers to a local water supplier and storage that has been retained by the Corps of Engineers.

The Water Supply pool includes the amount of storage the State has under contract to serve the needs of municipal or industrial users' long-term needs. The Water Supply pool is further divided into an In-Service portion and a Future Use portion. Some of the water supply contracts between the Corps of Engineers and the Kansas Water Office allow the State to defer payment on storage until the storage is needed. When the storage is being paid for it is considered In Service. The Corps of Engineers retains ownership of the Future Use storage until the State calls that storage into service.

The In-Service water supply is then further divided by how that storage has been and is being paid for. Water Marketing is the amount of committed storage to serve the customers of that program. Water Assurance is the amount of storage owned by the municipal and industrial users below lakes that have formed an assurance district. The Reserve Capacity is storage the State purchased in the mid 1990's under the 1985 Memorandum of Understanding (MOU) between Kansas and the U.S. Army Corps of Engineers. This portion of storage has not yet been needed for either the Water Marketing or Water Assurance programs. Annual operation and maintenance costs of the Reserve Capacity are paid by the State Water Plan Fund.

Table 1 provides the break out of the conservation storage in percentage of the current total conservation pool and in current estimated acre-feet, which is based on a projection using the most recent sediment survey adopted by the Corps of Engineers. The amount of water the water supply storage can yield during a 2% drought is also provided. The drought from 1952 through 1957 is defined in regulations as a 2% drought.

Table 2 - Contracted Quantities

Table 2 lists data associated with existing water marketing contracts for each lake. Table 2 provides the annual maximum quantity of water for each contract as well as the amount of water committed to each customer in 2023. Statute allows for a contract holder to negotiate a contract for an amount of water which gradually increases over time. The difference between the 2023 maximum quantity and the annual maximum quantity is a portion of the water available for surplus.

Table 3 - Pending Applications

Table 3 lists pending applications for water marketing contracts for each lake. The Water Marketing Program allows applications to remain on file for up to 13 years without beginning negotiations for a contract. Thus, some applications will not result in long term contracts in 2023. This information will be reviewed by the Director at the time a surplus application is submitted.

Table 4 - Past Surplus Contracts

Table 4 lists the surplus water marketing contracts for the past two years for each lake.

Table 5 - Surplus Yield

This table lists the yield that is determined to be surplus in 2023. Storage owned by a water assurance district and water committed to a water marketing customer in 2023 is not available for surplus contracts. Thus, the yield committed through marketing contracts and the yield associated with the portion of the Water Supply pool owned by a water assurance district is subtracted from the estimated 2023 yield. Additionally, the portion of the Water Supply pool considered Future Use Storage is controlled by the Corps of Engineers and is not available for a surplus water marketing contract. When there is Surplus Yield, the amount of Surplus Yield Available for use during the calendar year is limited to 10% of the Current Yield or the calculated Surplus Yield, whichever is less.

Calculation of Surplus Yield Available (*example*):

	mgd	AF/yr	
	10	11,201	Current Yield
-	2	2,240	Marketing Contracts
-	3	3,360	WAD Storage Yield
-	3	3,360	Future Use Yield
	2	2,240	Surplus Yield
	1	**1,120**	**Surplus Yield Available**

Lake Level Management Considerations

The Kansas Water Office is charged by the State Water Planning Act with negotiating and entering into agreements with the Corps of Engineers and the Bureau of Reclamation regarding operation or releases of water from federal projects. Seasonal lake levels are developed annually and are known as Lake Level Management Plans. Development of these plans includes public and stakeholder input. They are intended to increase the benefits to recreational users and improve wildlife and aquatic habitat while protecting the flood control, water supply and water quality purposes of the lake. It is important to note that the plans are developed for average climate conditions.

Most plans include additional flood storage for high springtime flows but flood operation procedures are followed as specified in the regulation manual. Drought conditions may also warrant deviation from the plan. Large volumes of water are stored or evacuated as the seasonal pool elevation changes. Protection of water supply storage is essential and statutory limitations are in place for this purpose. Water from the water quality and water supply pools may be evacuated during a lake level operation; however, the amount of water evacuated from the water supply pool under a lake level management operation is limited to the surplus yield available.

Internal Policy Memorandum #12

KANSAS WATER AUTHORITY
901 South Kansas Avenue, Topeka, KS 66612-1249 (785) 296-3185

Steve Irsik, Chairman
5405 Six Road, Ingalls, KS 67853
(620) 335-5363 - steve@ucom.net

IPM-12
Adopted April 7, 2006

MEMORANDUM OF INTERNAL POLICY

Disposal of Surplus Water in the State's Conservation Water Supply Capacity

Background

The Kansas Water Authority shall authorize the director of the Kansas Water Office to dispose of water when the Authority finds

1. the water is determined to be surplus,
2. it is in the public interest to dispose of the water, and
3. such disposal will advance the purposes of the State water resource planning act.

Surplus water is defined as waters within the conservation water supply capacity committed to the State, but not required to meet contractual requirements. K.S.A. 82a-1305(b) addresses disposal of surplus water.

82a-1305. (b) Whenever the authority finds that it is in the public's interest and will advance the purposes set forth in this act and in article 9 of chapter 82a of Kansas Statutes Annotated, and amendments thereto, the authority shall authorize the director to dispose of waters found by the authority to be surplus waters. Any arrangement for the disposition of any such surplus waters shall not be subject to the provisions of K.S.A. 82a-1306, 82a-1307 and 82a-1308a, and amendments thereto, relating to long-term contracts. No such arrangement shall be made for a period of time in excess of one year nor shall any such arrangement dispose of water from the conservation water supply capacity in excess of 10% of the yield capability as computed pursuant to subsection (a) unless the governor has declared that an emergency exists which affects the public health, safety or welfare. No charges shall be levied on the disposition of surplus waters when the purpose for such disposition is streamflow maintenance or reservoir pool management. A charge at a rate not to exceed the rate established pursuant to K.S.A. 82a-1306, and amendments thereto, shall be levied on the disposition of surplus waters when the purpose of such disposition is the maintenance of public health. A charge at a rate that may exceed the rate established pursuant to K.S.A. 82a-1306, and amendments thereto, shall be levied on the disposition of surplus waters when the purpose for such disposition is other than streamflow maintenance, reservoir pool management or maintenance of public health. History: L. 1974, ch. 452, § 5; L. 1976, ch. 441, § 2; L. 1977, ch. 358, § 1; L. 1983, ch. 343, § 4; L. 1984, ch. 382, § 2; L. 1986, ch. 396, § 4; July 1.

Process and Criteria

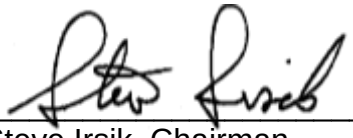
At the last Kansas Water Authority meeting of each calendar year, the Kansas Water Office will report to the Authority the following:

1. available surplus water within the State's water conservation storage capacity by reservoir for the following calendar year,
2. pending applications and on-going negotiations of water marketing contracts,
3. anticipated uses of the surplus water, including anticipated water marketing surplus contracts, streamflow maintenance needs and lake level management plans, and
4. assessment of any drought that may be occurring in the State and potential impacts of the drought on storage.

Approval of the report by the Authority will constitute a finding that the waters so indicated in the report are surplus, that it is in the public interest to dispose of the surplus waters, and disposal will advance the purposes of the State water resource planning act. The report will guide the director of the Kansas Water Office in disposing of surplus waters for the following calendar year, including entering into surplus water marketing contracts.

Because the yield capability of each reservoir's water conservation storage, referred to in K.S.A. 82a-1305(a), is projected into the future forty years per K.A.R. 98-5-8(a)(4) and the annual report of disposal of surplus water will utilize yield data associated with the following calendar year, the disposal of surplus water will be limited to the amount of storage that allows 90% of the "yield capability as computed pursuant to subsection (a)" to remain in storage for the following calendar year.

Date: June 2, 2006



Steve Irsik, Chairman
Kansas Water Authority

Reservoir Specific Tables

Big Hill Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	814 - 858	Flood Pool Elevation (ft msl)	858 - 867.5

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	0.00%	0	0
Other/Local	0.00%	0	0
Water Supply	100.00%	7.9	21,622
Future Use	64.20%	5.1	13,880
In Service	35.81%	2.8	7,742
Water Marketing	35.80%	2.9	7,742
Assurance District	0.00%	0	0
Reserve Capacity	0.00%	0	0

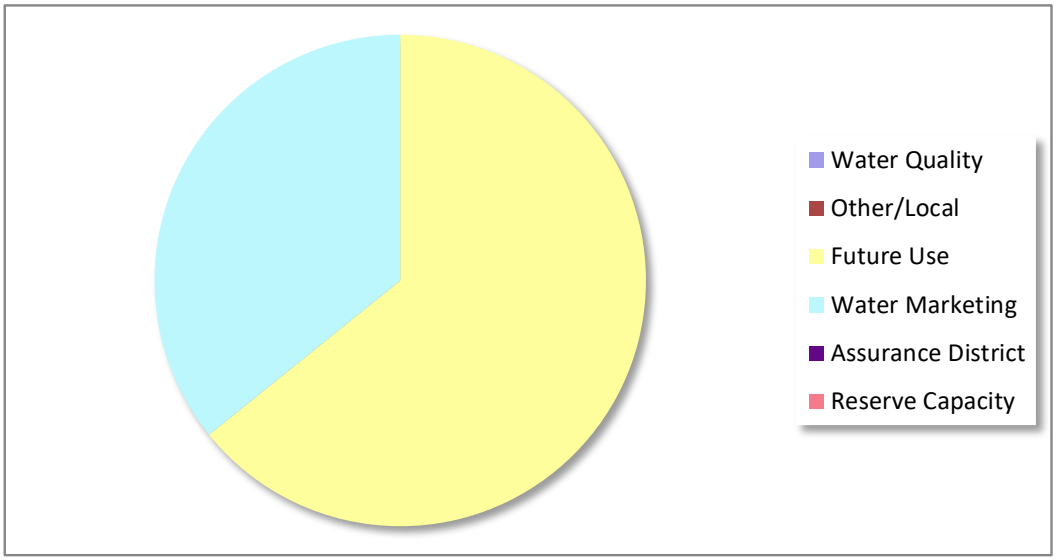


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
98-1	Public Wholesale Water Supply Dist. No. 4	4/17/2038	454,700,000	1,395	454,700,000	1,395
			454,700,000	1,395	454,700,000	1,395

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
7.9	8,892	Current Yield
1.2	1,395	Marketing Contracts
0	0	WAD Storage Yield
5.1	5,708	Future Use Yield
1.6	1,788	Surplus Yield
0.79	**889**	**Surplus Yield Available**

Lake Level Management Consideration

No Lake Level Management Plan was prepared for Big Hill for Water Year 2023.

Clinton Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	840 - 875.5	Flood Pool Elevation (ft msl)	875.5 - 903.4

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	19.20%	0	21,104
Other/Local	0.00%	0	0
Water Supply	80.80%	17.9	88,814
Future Use	32.30%	7.1	35,503
In Service	48.50%	10.7	53,310
Water Marketing	48.50%	10.7	53,310
Assurance District	0.00%	0	0
Reserve Capacity	0.00%	0	0

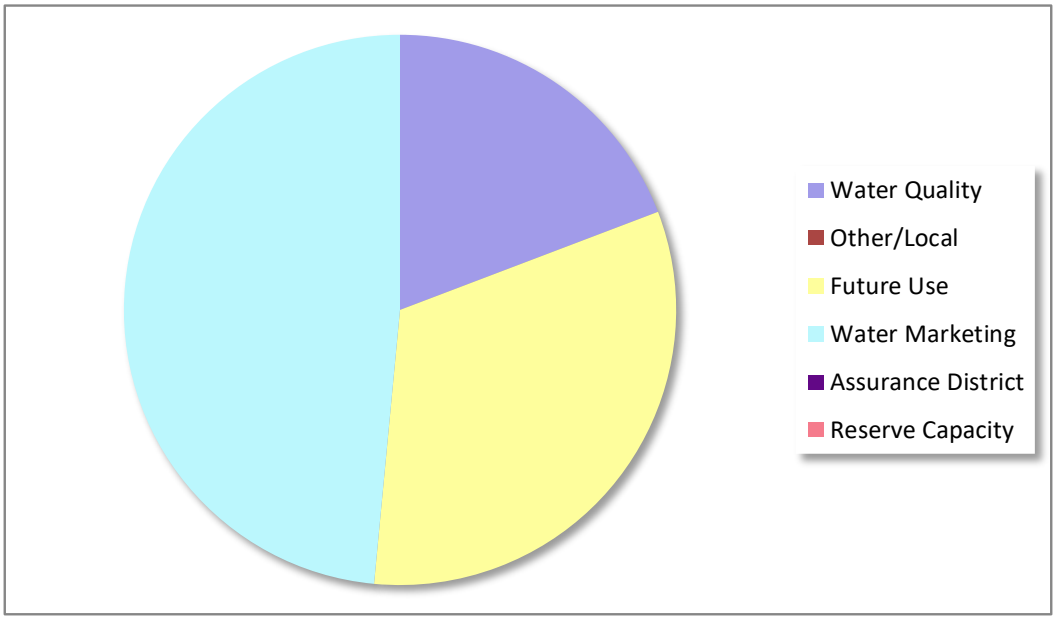


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
95-3	Douglas County Rural Water District No. 5	10/26/2035	128,298,541	394	128,298,541	394
19-1	City of Lawrence	12/29/2059	4,988,000,000	15,308	4,988,000,000	15,308
21-2	Douglas County Rural Water District No. 3	12/13/2041	650,000,000	1,995	650,000,000	1,995
21-4	Douglas County Rural Water District No. 6	12/13/2041	33,200,000	102	33,200,000	102
			5,799,498,541	17,798	5,799,498,541	17,798

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

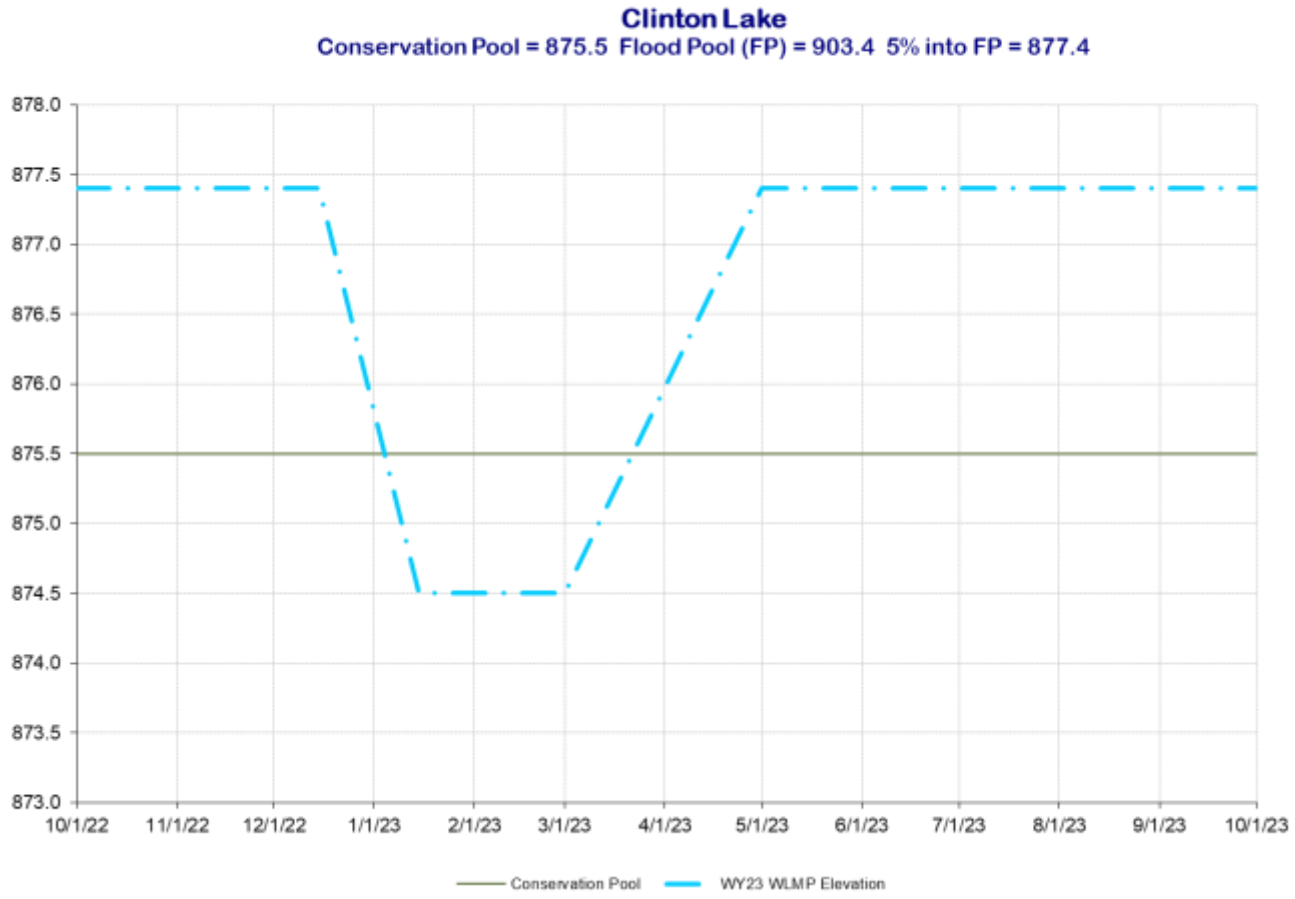
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
17.9	20,019	Current Yield
15.9	17,798	Marketing Contracts
0	0	WAD Storage Yield
7.1	8,002	Future Use Yield
0.0	0	Surplus Yield
0.0	**0**	**Surplus Yield Available**

Lake Level Management Consideration

According to the Lake Level Management Plan, pool level may be lowered by January (or prior to freezing). The minimum lake level in this plan does not require disposition of surplus water.



Council Grove Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	1240 - 1274	Flood Pool Elevation (ft msl)	1274 - 1289

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	22.67%	0	9,189
Other/Local	0.00%	0	0
Water Supply	77.33%	8.2	31,345
Future Use	0.00%	0.0	0
In Service	77.33%	8.2	31,345
Water Marketing	43.43%	4.6	17,604
Assurance District	14.80%	1.6	5,999
Reserve Capacity	19.10%	2.0	7,742

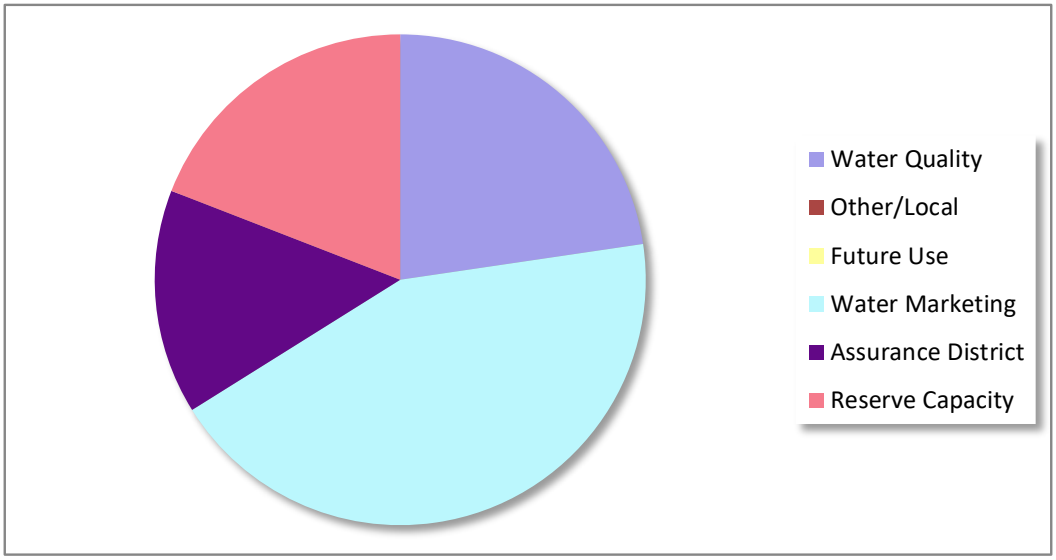


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
81-2	City of Emporia	10/21/2023	1,095,000,000	3,360	1,095,000,000	3,360
93-4	City of Council Grove	9/13/2033	60,000,000	184	150,000,000	460
			1,155,000,000	3,544	1,245,000,000	3,820

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
No pending applicatins			

Table 4: Past Surplus Contracts

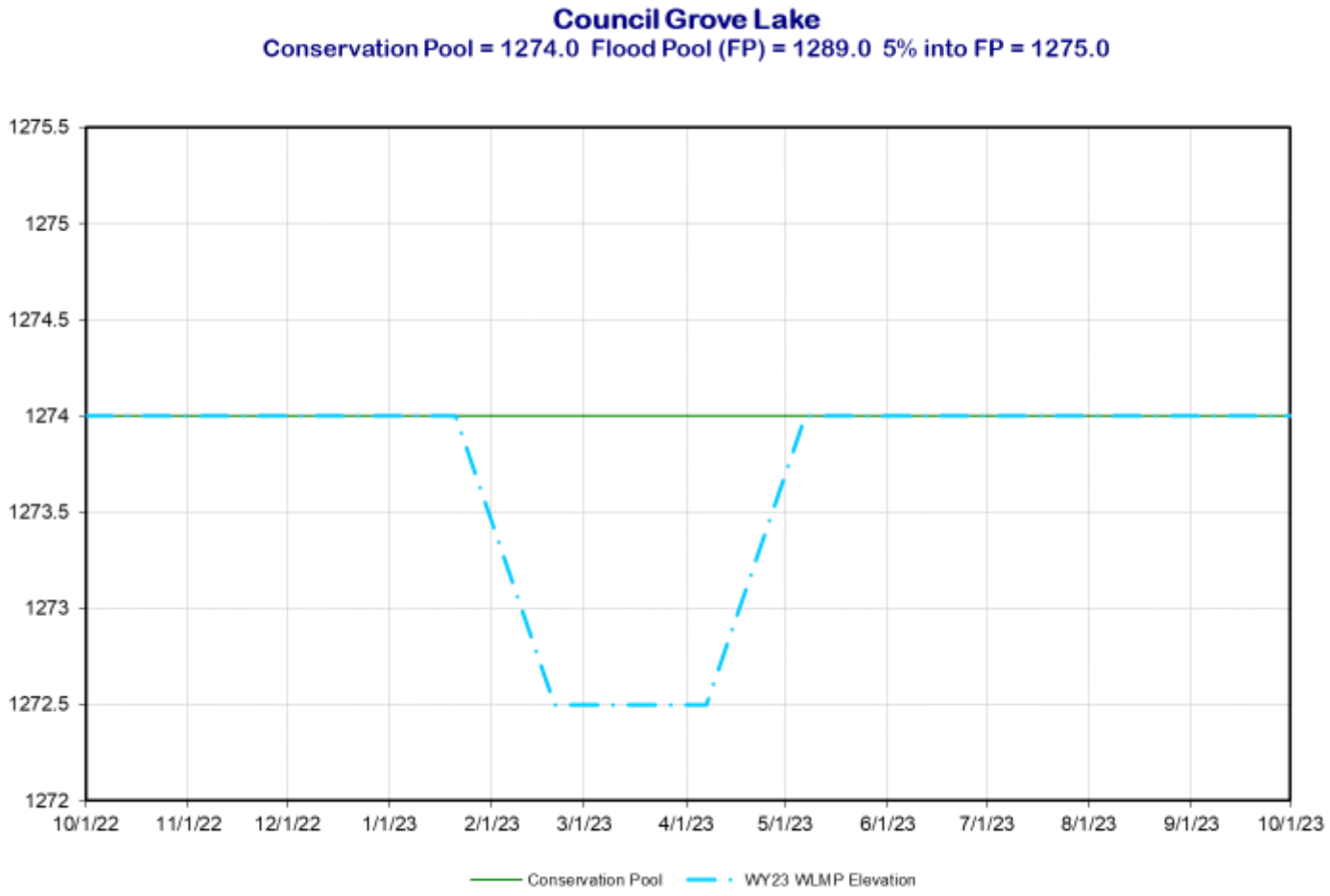
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
8.2	9,246	Current Yield
3.2	3,544	Marketing Contracts
1.6	1,770	WAD Storage Yield
0.0	0	Future Use Yield
3.5	3,932	Surplus Yield
0.82	**925**	**Surplus Yield Available**

Lake Level Management Consideration

According to the Lake Level Management Plan, pool level may be lowered in January (or prior to freezing). The minimum lake level in this plan does not require disposition of surplus water.



Elk City Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	764 - 796	Flood Pool Elevation (ft msl)	796 - 825

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	14.08%	0	4,671
Other/Local	0.00%	0	0
Water Supply	85.92%	13.4	28,506
Future Use	0.00%	0.0	0
In Service	85.92%	13.4	28,506
Water Marketing	57.45%	9.0	19,060
Assurance District	0.00%	0.0	0
Reserve Capacity	28.47%	4.4	9,446

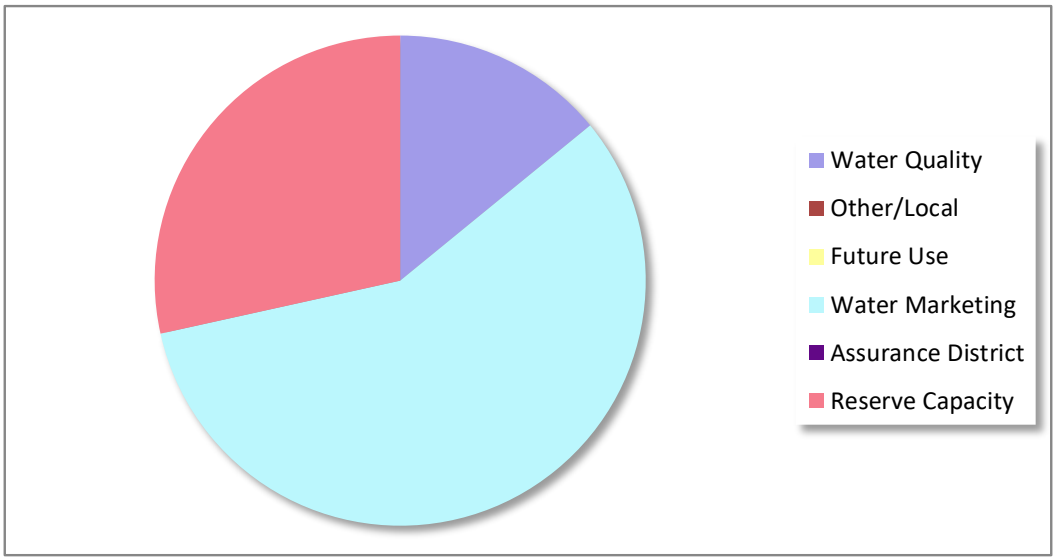


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
81-5	City of Coffeyville	12/16/2023	300,000,000	921	300,000,000	921
99-5	Coffeyville Resources	12/3/2039	608,000,000	1,866	608,000,000	1,866
12-7	Coffeyville Resources	8/9/2051	400,000,000	1,228	400,000,000	1,228
22-01	City of Independence	8/17/2062	60,000,000	184	60,000,000	184
			1,368,000,000	4,199	1,368,000,000	4,199

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
22-03	Independence Country Club	12/31/2022	2,000,000	6
22-04	Dale Springer	12/31/2022	6,517,020	20

Table 5: Surplus Yield

mgd	AF/yr	
13.4	15,035	Current Yield
3.7	4,199	Marketing Contracts
0.0	0	WAD Storage Yield
0.0	0	Future Use Yield
9.7	10,836	Surplus Yield
1.34	**1,503**	**Surplus Yield Available**

Lake Level Management Consideration

No Lake Level Management Plan was prepared for Elk City for Water Year 2023.

Hillsdale Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	850 - 917	Flood Pool Elevation (ft msl)	917 - 931

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	22.06%	0	16,566
Other/Local	0.00%	0	0
Water Supply	77.94%	15.4	58,528
Future Use	53.26%	10.6	39,993
In Service	24.68%	4.9	18,536
Water Marketing	24.68%	4.9	18,536
Assurance District	0.00%	0.0	0
Reserve Capacity	0.00%	0.0	0

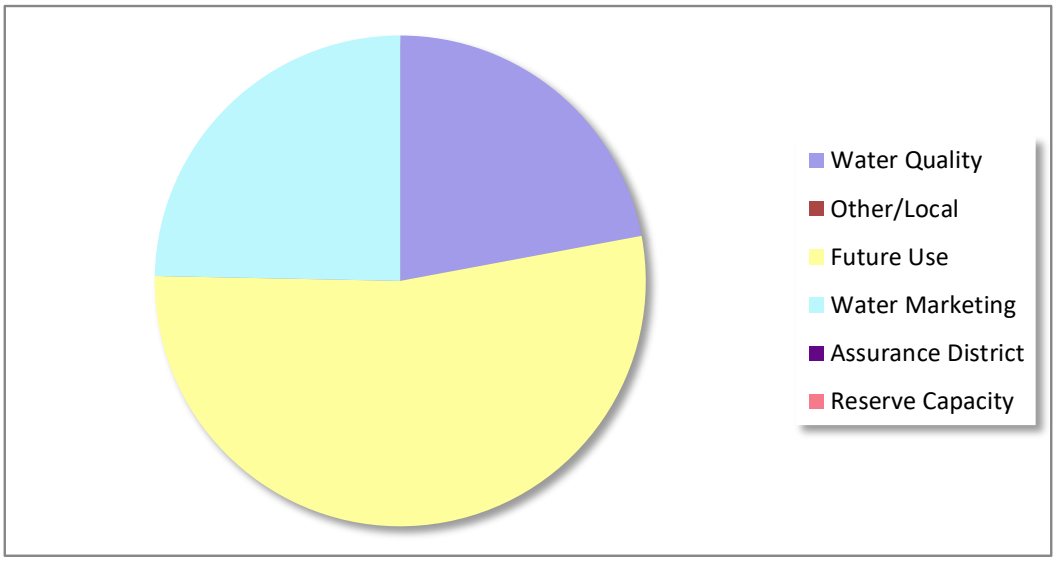


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
81-1	Miami County Rural Water District No. 2	10/21/2023	239,440,000	735	239,440,000	735
13-1	Hillsdale Area Water Cooperative	12/31/2052	5,010,865,000	15,378	5,308,560,000	16,291
			5,250,305,000	16,113	5,548,000,000	17,026

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

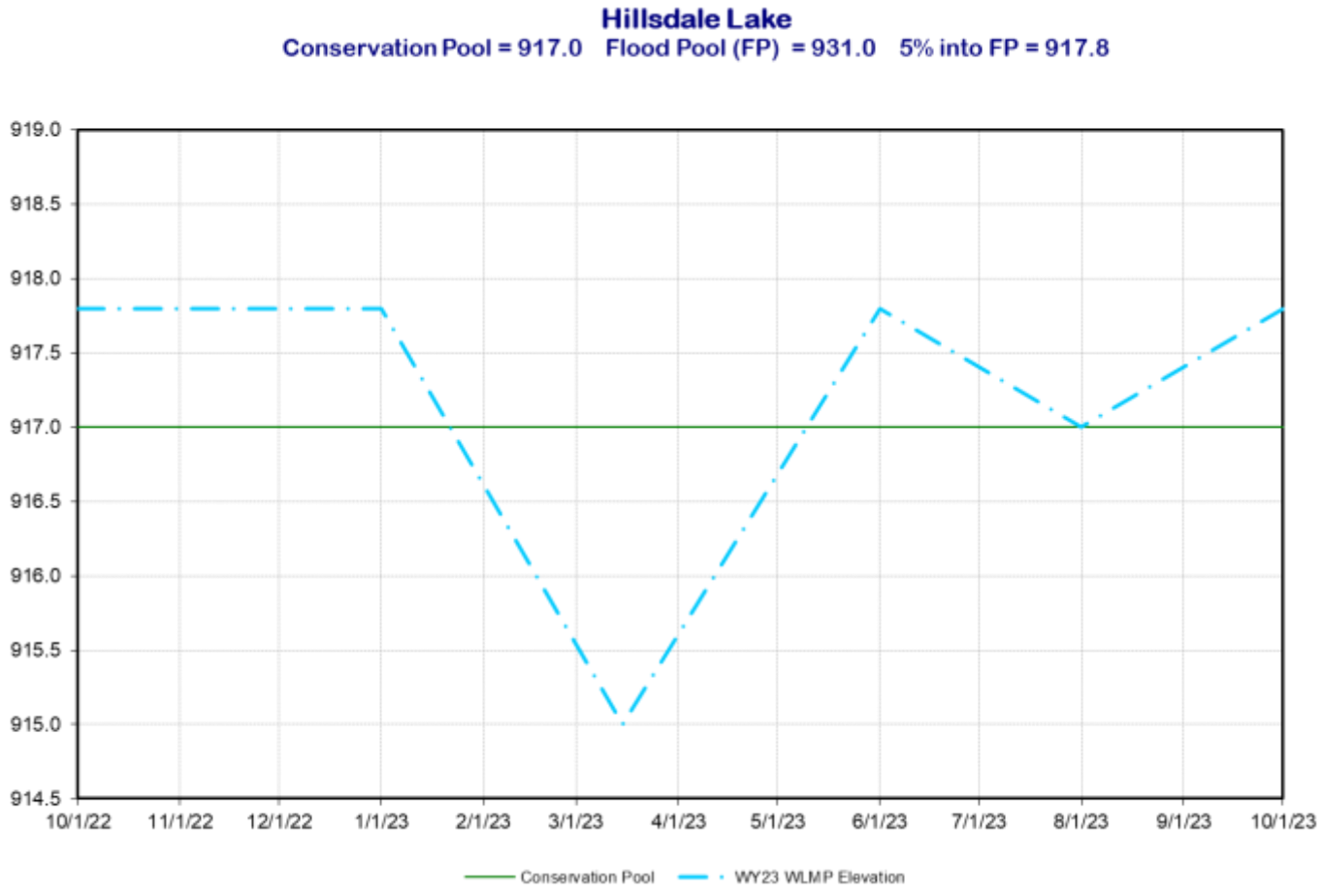
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
15.4	17,311	Current Yield
14.4	16,113	Marketing Contracts
0.0	0	WAD Storage Yield
10.6	11,829	Future Use Yield
0.0	0	Surplus Yield
0.00	**0**	**Surplus Yield Available**

Lake Level Management Consideration

According to the Lake Level Management Plan, pool level may be lowered in January (or prior to freezing). The minimum lake level in this plan does not require disposition of surplus water.



John Redmond Reservoir

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	1020 - 1041	Flood Pool Elevation (ft msl)	1041 - 1068

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	23.82%	0	13,661
Other/Local	0.00%	0	0
Water Supply	76.18%	29.7	43,690
Future Use	0.00%	0.0	0
In Service	76.18%	29.7	43,690
Water Marketing	69.06%	26.9	39,607
Assurance District	7.12%	2.8	4,083
Reserve Capacity	0.00%	0.0	0

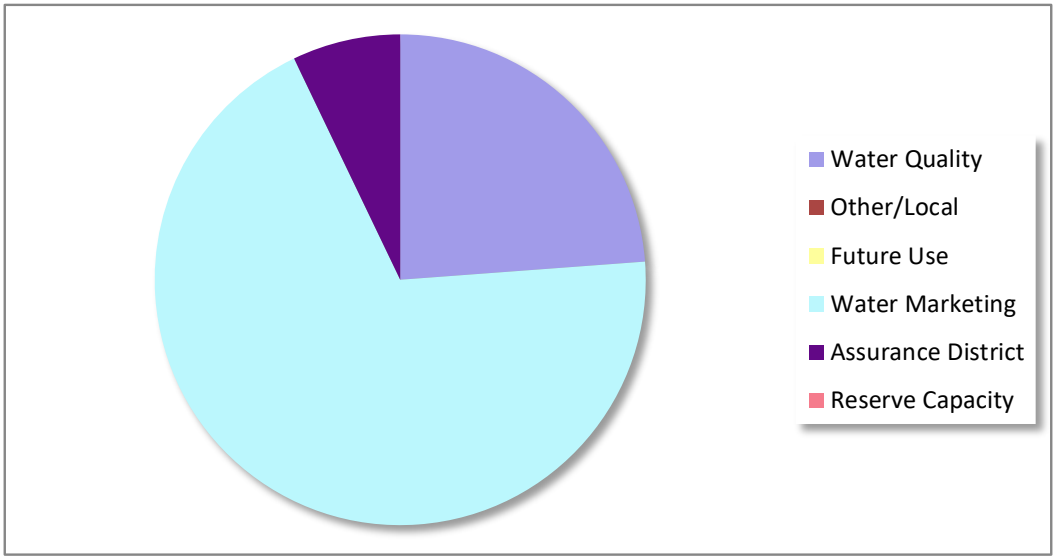


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
17-2	Wolf Creek Nuclear Generating Station	12/31/2027	9,368,000,000	28,749	9,368,000,000	28,749
	(KG&E, KCP&L, KEPC)		9,368,000,000	28,749	9,368,000,000	28,749

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
29.7	33,311	Current Yield
25.6	28,749	Marketing Contracts
2.8	3,113	WAD Storage Yield
0.0	0	Future Use Yield
1.3	1,448	Surplus Yield
0.00	**0**	***Surplus Yield Available**

**The simple yield calculations of the spreadsheet model do result in a small amount of surplus, however, the OASIS system model, incorporating a more dynamic operation and demand pattern, indicates that additional contract obligations should not be made available.*

Lake Level Management Consideration

No Lake Level Management Plan was prepared for John Redmond for Water Year 2023.

Kanopolis Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	1431 - 1463	Flood Pool Elevation (ft msl)	1463 - 1508

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	53.40%	0	23,552
Other/Local	0.00%	0	0
Water Supply	46.60%	8.3	20,553
Future Use	0.00%	0.0	0
In Service	46.60%	8.3	20,553
Water Marketing	22.37%	4.0	9,866
Access District	24.23%	4.3	10,687
Reserve Capacity	0.00%	0.0	0

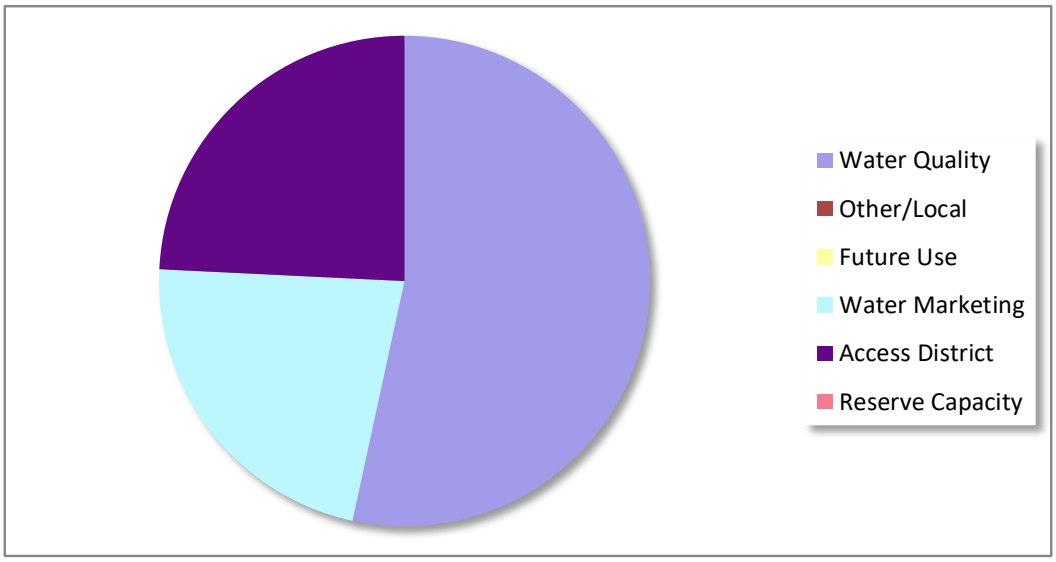


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
01-2	Post Rock Rural Water District	7/12/2041	400,000,000	1,228	400,000,000	1,228
			400,000,000	1,228	400,000,000	1,228

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

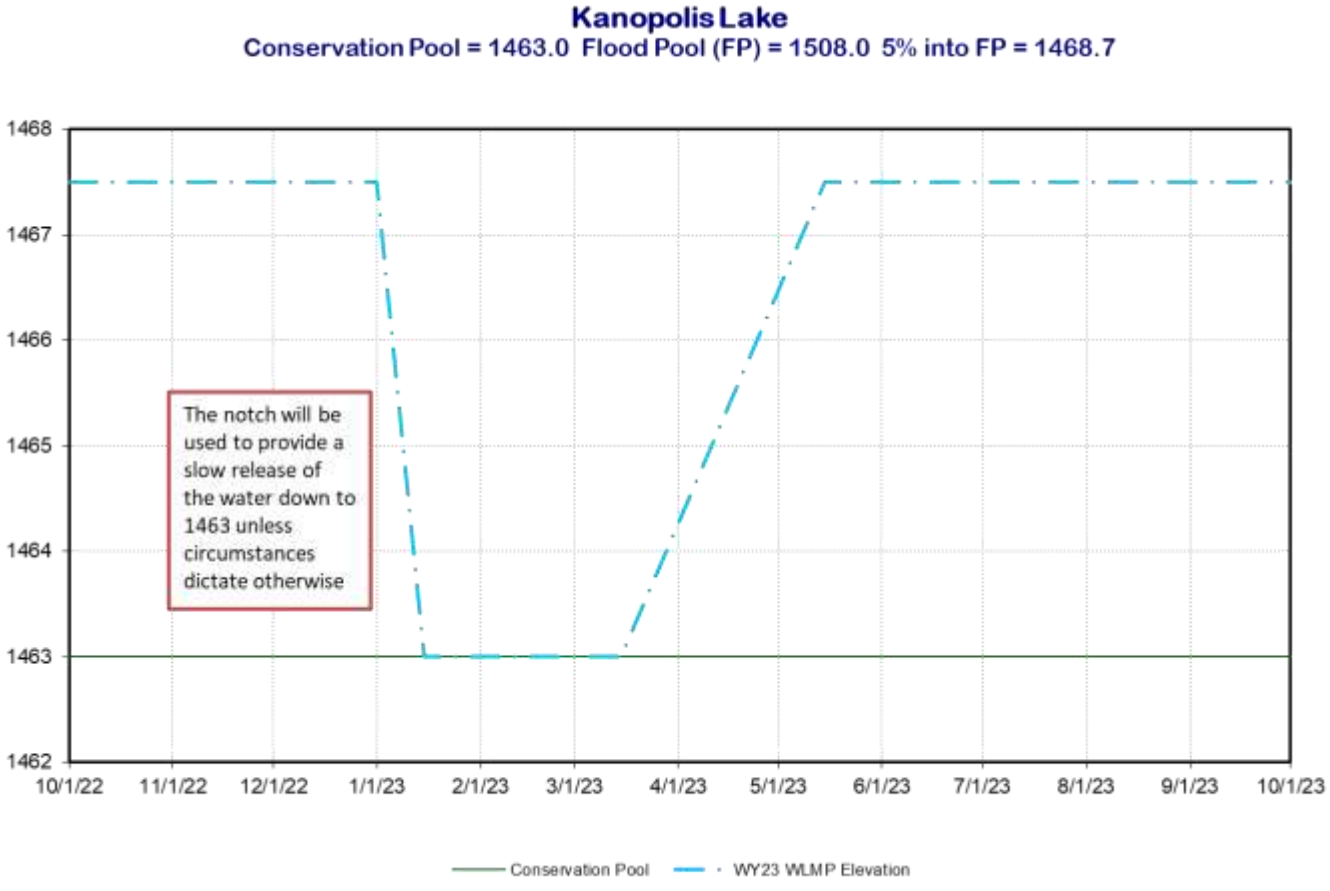
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
8.3	9,270	Current Yield
1.1	1,228	Marketing Contracts
4.3	4,820	AD Storage Yield
0.0	0	Future Use Yield
2.9	3,222	Surplus Yield
0.83	**927**	**Surplus Yield Available**

Lake Level Management Consideration

In accordance with the Lake Level Management Plan for Kanopolis, no conservation storage will be evacuated during the 2023 Water Year.



Marion Reservoir

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	1320 - 1350.5	**Flood Pool Elevation (ft msl)**	1350.5 - 1358.5

	Break Out of Conservation Storage	**Current Yield (mgd)**	**Current Storage (acre feet)**
Water Quality	35.88%	0	27,628
Other/Local	0.00%	0	0
Water Supply	64.12%	5.1	49,374
Future Use	0.00%	0.0	0
In Service	64.12%	5.1	49,374
Water Marketing	45.77%	3.61	35,244
Assurance District	0.43%	0.03	331
Reserve Capacity	17.92%	1.41	13,799

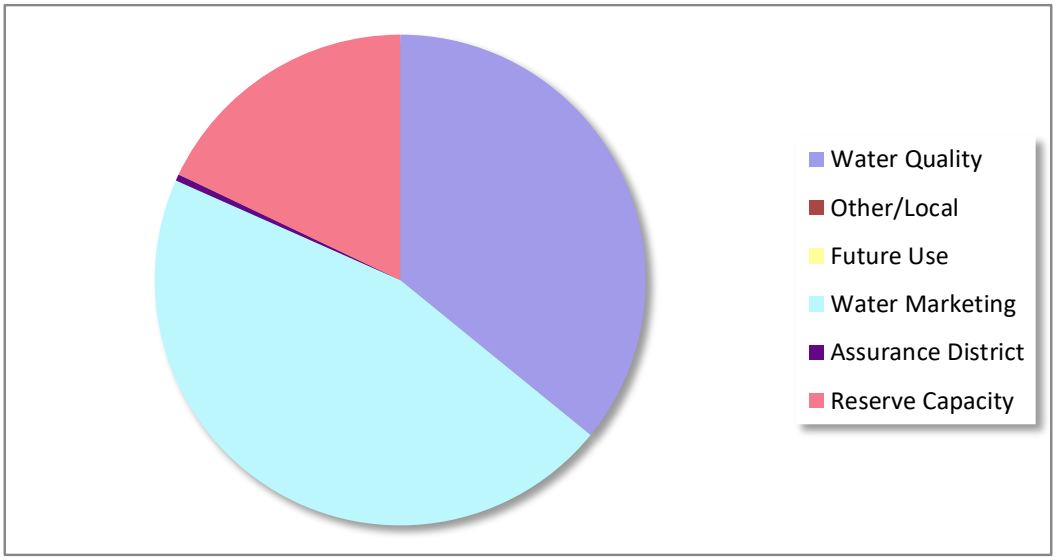


Table 2: Contracted Quantities

Contract Number	**Customer Name**	**Contract End Date**	**2023 Maximum Gallons**	**2023 Maximum AF**	**Annual Contract Maximum Gallons**	**Annual Contract Maximum AF**
81-4	City of Marion	10/3/2023	237,500,000	729	237,500,000	729
99-1	City of Peabody	4/9/2039	60,000,000	184	60,000,000	184
21-3	City of Hillsboro	12/22/2061	300,000,000	921	300,000,000	921
			597,500,000	1,834	597,500,000	1,834

Table 3: Pending Applications

Applicant Name	**Application Expiration Date**	**Requested Quantity Gallons**	**Requested Quantity AF**
There are no pending applications on file			

Table 4: Past Surplus Contracts

Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
21-1	Keith Jost	12/31/2021	15,000,000	46

Table 5: Surplus Yield

mgd	AF/yr	
5.1	5,668	Current Yield
1.64	1,834	Marketing Contracts
0.03	38	WAD Storage Yield
0.0	0	Future Use Yield
3.39	3,797	Surplus Yield
0.51	**567**	**Surplus Yield Available**

Lake Level Management Consideration

No Lake Level Management Plan was prepared for Marion Water Year 2023.

Melvern Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	975 - 1036	Flood Pool Elevation (ft msl)	1036 - 1057

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	27.59%	0	40,611
Other/Local	37.93%	0	55,830
Water Supply	34.48%	8.6	50,752
Future Use	0.00%	0.0	0
In Service	34.48%	8.6	50,752
Water Marketing	9.90%	2.5	14,572
Assurance District	7.17%	1.8	10,554
Reserve Capacity	17.41%	4.3	25,626

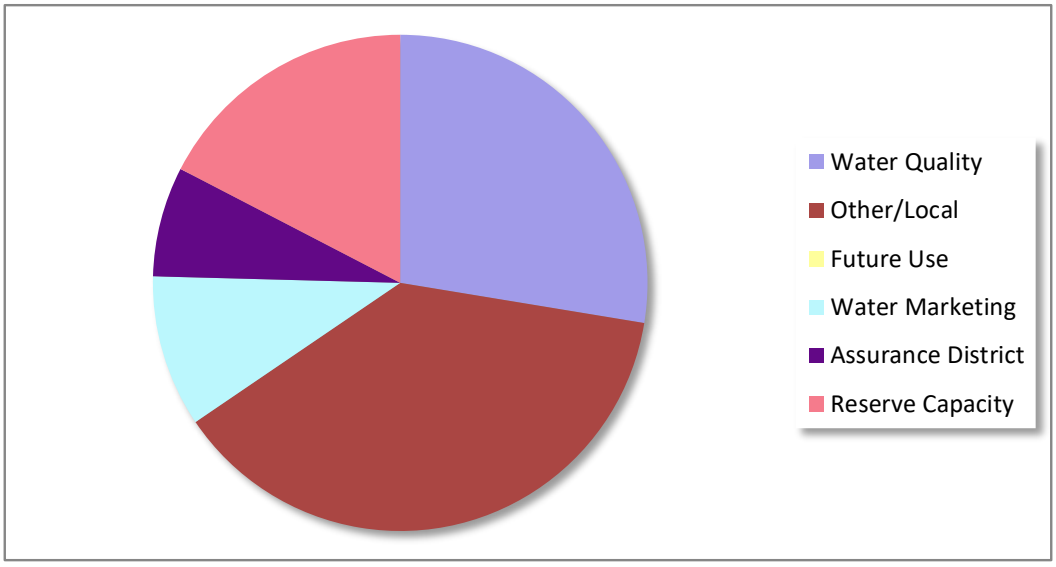


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
93-3	City of Osage City	4/22/2033	100,000,000	307	100,000,000	307
93-2	City of Burlingame	7/15/2033	65,000,000	199	65,000,000	199
93-1	Public Wholesale Water Supply District No. 12	1/1/2035	450,000,000	1,381	547,430,000	1,680
05-6	City of Harveyville	8/11/2045	25,000,000	77	25,000,000	77
			640,000,000	1,964	737,430,000	2,263

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

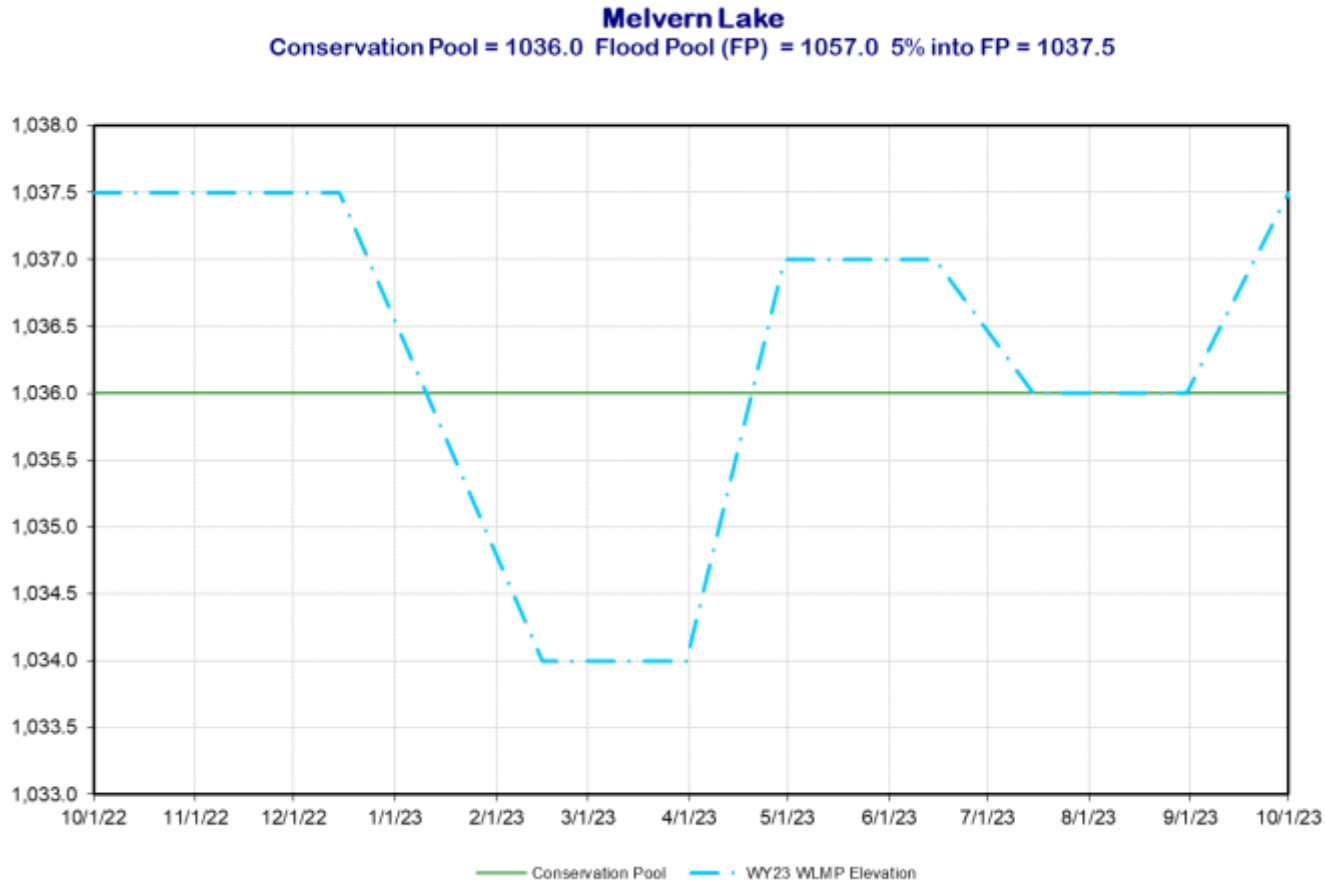
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
8.6	9,616	Current Yield
1.8	1,964	Marketing Contracts
1.8	2,000	WAD Storage Yield
0.0	0	Future Use Yield
5.0	5,652	Surplus Yield
0.86	**962**	**Surplus Yield Available**

Lake Level Management Consideration

According to the Lake Level Management Plan, pool level may be lowered in December (or prior to freezing). The minimum lake level in this plan does not require disposition of surplus water.



Milford Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	1080 - 1144.4	Flood Pool Elevation (ft msl)	1144.4 - 1176.2

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	0.00%	0	0
Other/Local	0.00%	0	0
Water Supply	100.00%	108	352,573
Future Use	66.12%	71	233,122
In Service	33.88%	36	119,452
Water Marketing	15.55%	17	54,825
Assurance District	18.33%	20	64,627
Reserve Capacity	0.00%	0	0

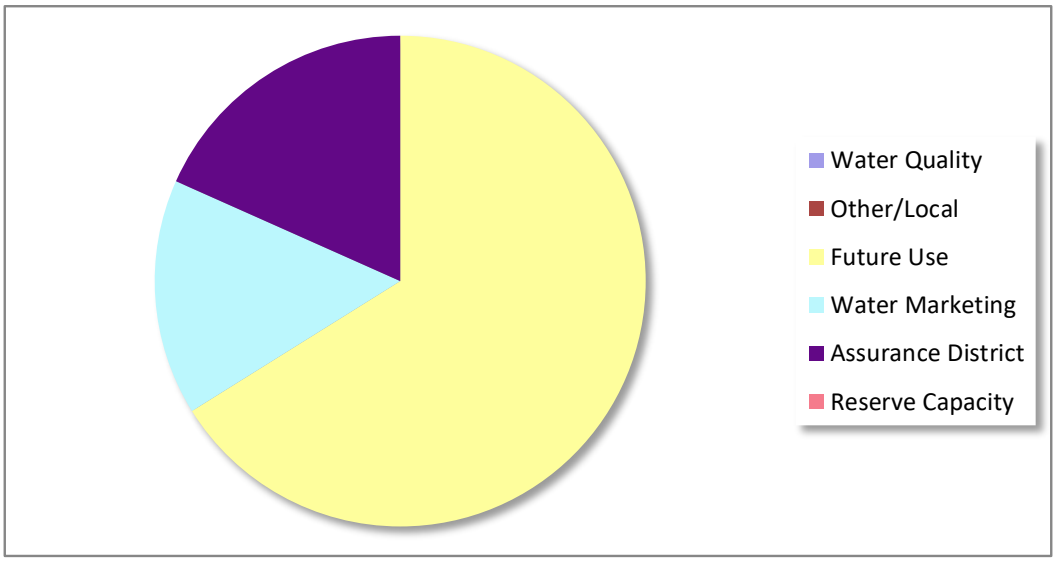


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
80-2	Westar Energy - Jeffrey Energy Center	12/5/2022	7,300,000,000	22,403	7,300,000,000	22,403
			7,300,000,000	22,403	7,300,000,000	22,403

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

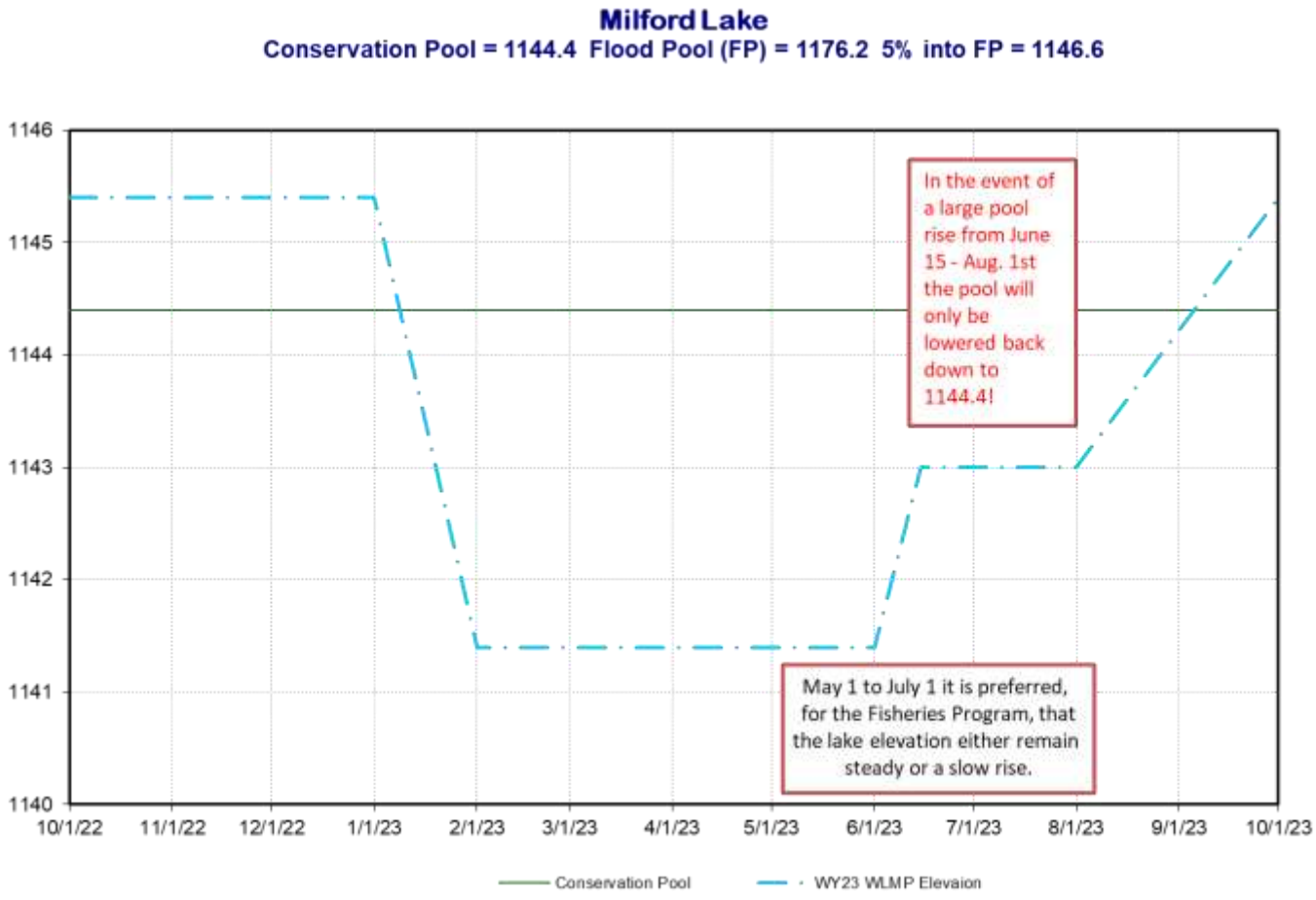
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
108	120,592	Current Yield
20	22,403	Marketing Contracts
20	22,105	WAD Storage Yield
71	79,736	Future Use Yield
0.0	0	Surplus Yield
0.00	**0**	**Surplus Yield Available**

Lake Level Management Consideration

In accordance with the Lake Level Management Plan for Milford, pool level will be lowered in January. The drawdown will be made in an attempt to mitigate the impact of the harmful algal blooms in the lake. The quantity of water in the future use pool is sufficient for the evacuation of storage associated with the change in elevation.



Perry Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	850 - 891.5	Flood Pool Elevation (ft msl)	891.5 - 920.6

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	0.00%	0	0
Other/Local	0.00%	0	0
Water Supply	100.00%	74.6	185,749
Future Use	83.33%	62.2	154,785
In Service	16.67%	12.4	30,964
Water Marketing	0.00%	0.0	0
Assurance District	16.67%	12.4	30,964
Reserve Capacity	0.00%	0.0	0

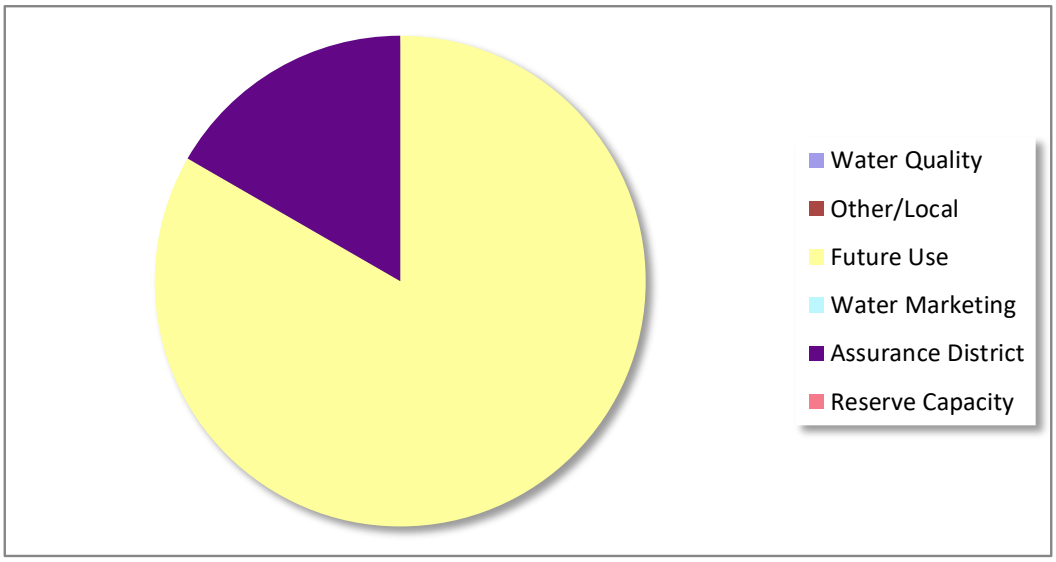


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There are no contracted quantities						

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

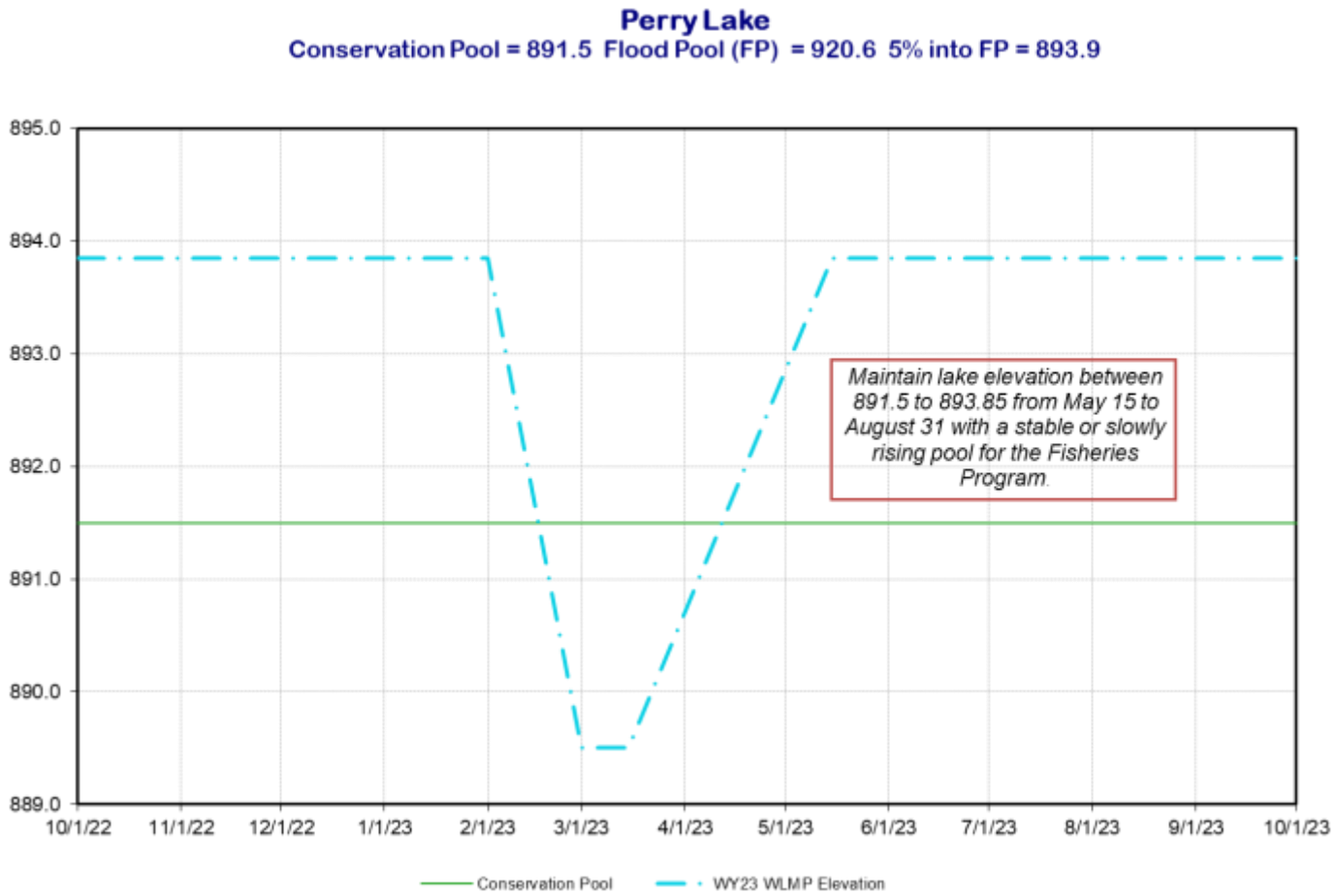
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
74.6	83,603	Current Yield
0.0	0	Marketing Contracts
12.4	13,937	WAD Storage Yield
62.2	69,666	Future Use Yield
0.0	0	Surplus Yield
0.00	**0**	**Surplus Yield Available**

Lake Level Management Consideration

In accordance with the Lake Level Management Plan for Perry, pool level will be lowered in February. The quantity of water in the future use pool is sufficient for the evacuation of storage associated with the change in elevation.



Pomona Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	945 - 974	Flood Pool Elevation (ft msl)	974 - 1003

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	25.24%	0	12,892
Other/Local	0.89%	0	456
Water Supply	73.86%	7.7	37,719
Future Use	0.00%	0.0	0
In Service	73.86%	7.7	37,719
Water Marketing	1.52%	0.2	776
Assurance District	23.63%	2.5	12,068
Reserve Capacity	48.71%	5.1	24,876

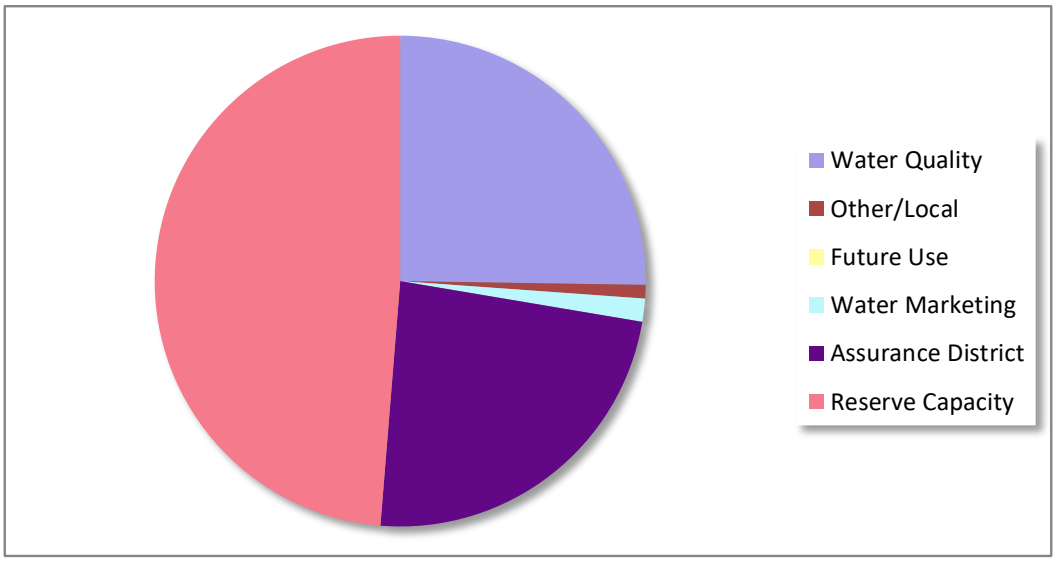


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
05-5	Osage County Rural Water District No. 3	7/10/2048	55,600,000	171	55,600,000	171
			55,600,000	171	55,600,000	171

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

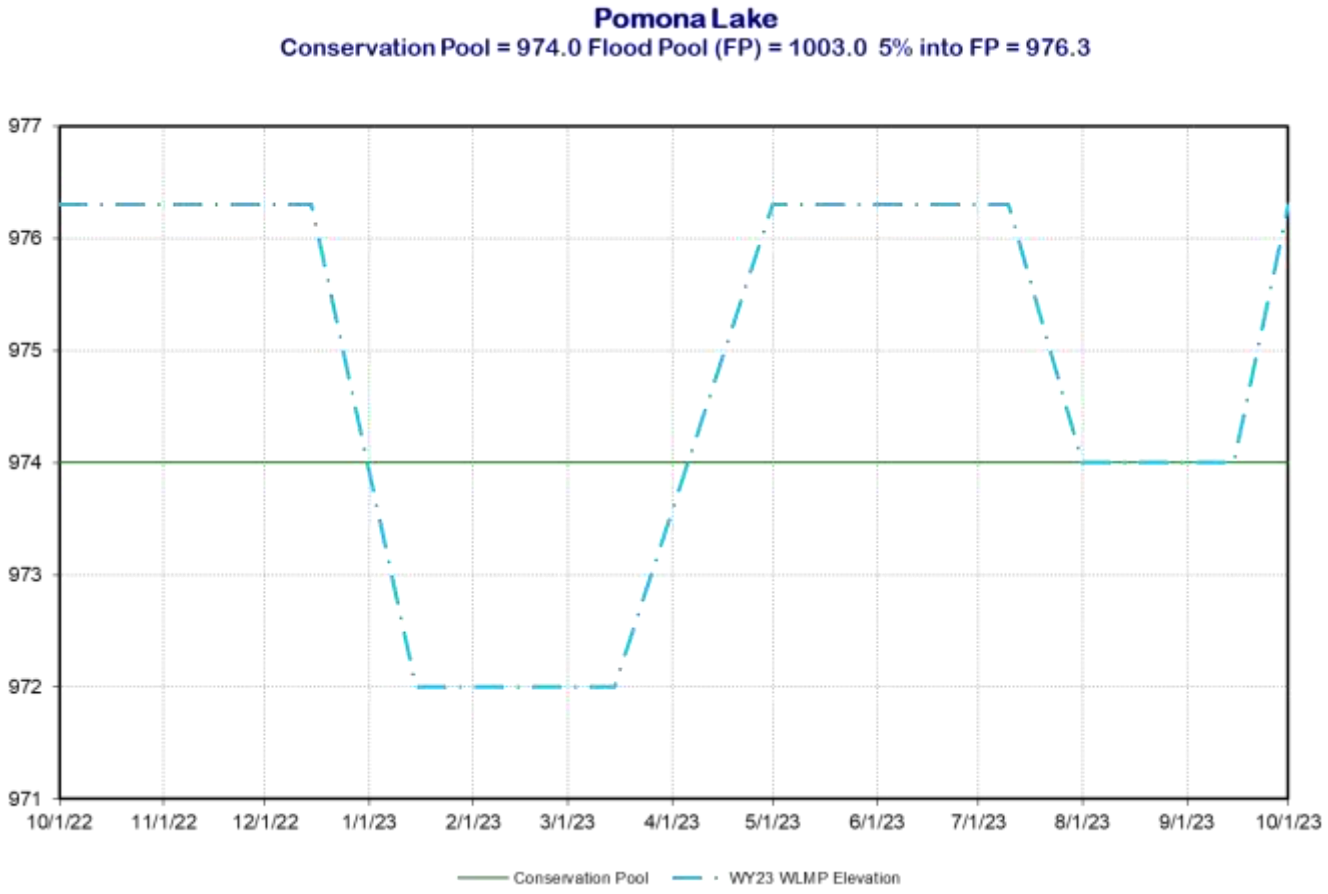
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
7.7	8,628	Current Yield
0.2	171	Marketing Contracts
2.5	2,760	WAD Storage Yield
0.0	0	Future Use Yield
5.1	5,697	Surplus Yield
0.77	**863**	**Surplus Yield Available**

Lake Level Management Consideration

In accordance with the Lake Level Management Plan for Pomona, pool level will be lowered in December. The minimum lake level in this plan does not require disposition of surplus water.



Toronto Lake

Table 1: Conservation Storage Break Out

Conservation/Inactive Pool Elev. (ft msl)	856 - 901.5	Flood Pool Elevation (ft msl)	901.5 - 931

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality/Supply	60.04%	2.7	8,181
Inactive (Below 896.0)	37.63%	1.7	5,127
Water Supply	2.33%	0.1	318
Future Use	0.00%	0.0	0
In Service	2.33%	0.1	318
Water Marketing	0.00%	0.0	0
Assurance District	0.00%	0.0	0
Reserve Capacity	2.33%	0.1	318

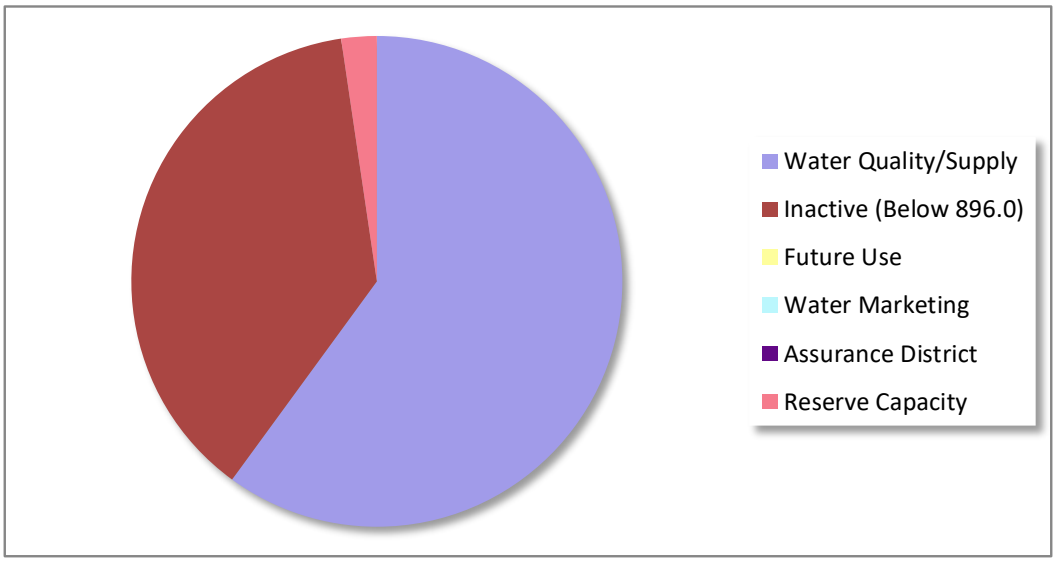


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There are no contracted quantities						

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
4.5	5,082	Current Yield
0.0	0	Marketing Contracts
0.0	0	WAD Storage Yield
0.0	0	Future Use Yield
0.1	118	Surplus Yield
0.11	**118**	**Surplus Yield Available**

Lake Level Management Consideration

No Lake Level Management Plan was prepared for Toronto for Water Year 2023.

Tuttle Creek Lake

Table 1: Conservation Storage Break Out

Conservation Pool Elevation (ft msl)	1020 - 1075	Flood Pool Elevation (ft msl)	1075 - 1136

	Break Out of Conservation Storage	Current Yield (mgd)	Current Storage (acre feet)
Water Quality	59.02%	0	128,481
Other/Local	0.00%	0	0
Water Supply	40.98%	160.5	89,210
Future Use	0.00%	0.0	0
In Service	40.98%	160.5	89,210
Water Marketing	0.00%	0.0	0
Assurance District	33.89%	132.7	73,776
Reserve Capacity	7.09%	27.8	15,434

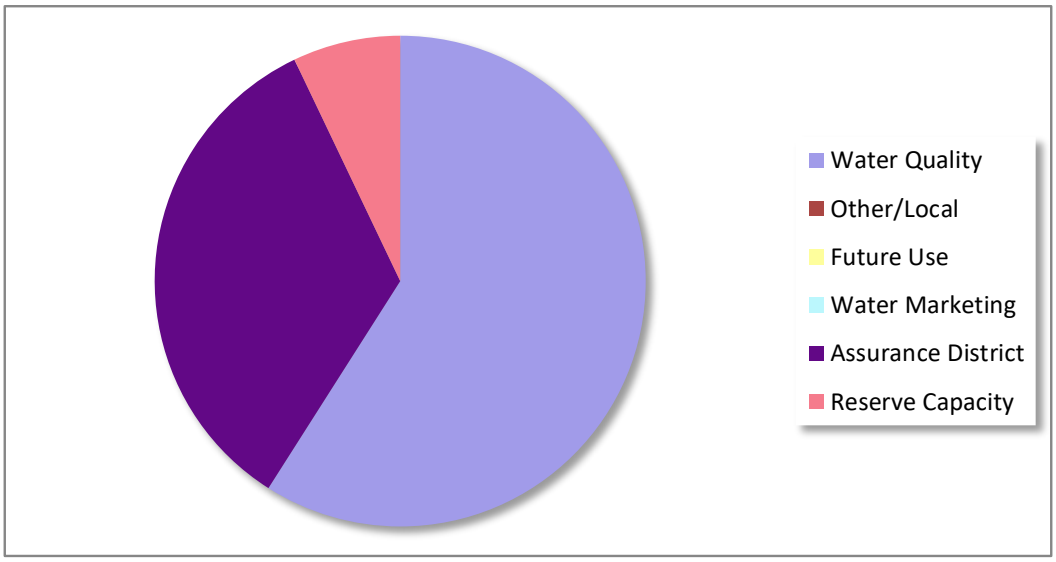


Table 2: Contracted Quantities

Contract Number	Customer Name	Contract End Date	2023 Maximum Gallons	2023 Maximum AF	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There are no contracted quantities						

Table 3: Pending Applications

Applicant Name	Application Expiration Date	Requested Quantity Gallons	Requested Quantity AF
There are no pending applications on file			

Table 4: Past Surplus Contracts

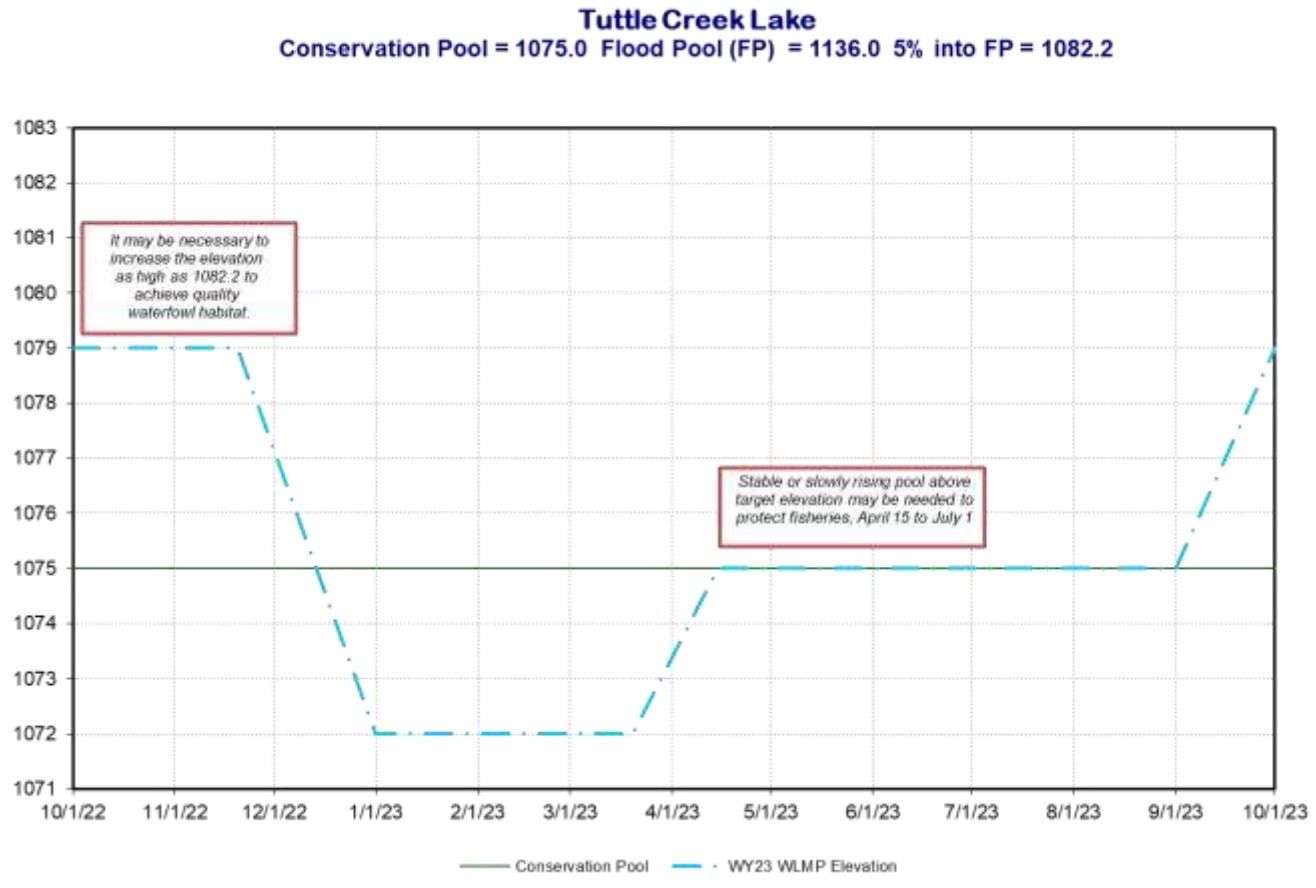
Contract Number	Customer Name	Contract End Date	Annual Contract Maximum Gallons	Annual Contract Maximum AF
There were no surplus contracts in the past two years				

Table 5: Surplus Yield

mgd	AF/yr	
161	179,926	Current Yield
0	0	Marketing Contracts
133	148,797	WAD Storage Yield
0	0	Future Use Yield
28	31,129	Surplus Yield
16.1	**17,993**	**Surplus Yield Available**

Lake Level Management Consideration

In accordance with the Lake Level Management Plan for Tuttle Creek, pool level will be lowered in December. The minimum lake level in this plan does not require disposition of surplus water.



MEMO

DATE: December 7, 2022
TO: Kansas Water Authority
FROM: Matt Unruh
RE: KWA Ogallala Aquifer Committee Update

Kansas Water Office
900 SW Jackson Street, Suite 404
Topeka, KS 66612
Phone: (785) 296-3185
Fax: (785) 296-0878
www.kwo.ks.gov

The Ogallala Aquifer Committee of the Kansas Water Authority (KWA) met on November 29 in Hays, Kansas. Committee members present for the meeting were as follows:

- Voting (all present): Dawn Buehler, Lynn Goossen, Randy Hayzlett, Jeremiah Hobbs, and Jean Steiner.
- Ex Officio: Mike Beam (KDA), Earl Lewis (KDA-DWR), Andrew Lyon (KDA-DOC), Connie Owen (KWO), and Brownie Wilson (KGS).

This meeting was convened by Dawn Buehler, KWA Chair, as an initial KWA next step following the KWA's approval of the *Kansas Water Plan* at the August 2022 KWA meeting in Manhattan. Within the "Conserve and Extend the High Plains Aquifer" Guiding Principle section there is a *Kansas Water Plan* recommendation which states *"The Kansas Water Authority shall create a committee to consider sustainability as part of the Guiding Principle addressing the Ogallala Aquifer"*. Information discussed at the meeting pertained to sustainability of the Ogallala Aquifer.

Chief Engineer Earl Lewis provided an overview of Ogallala Aquifer policy in Kansas and Brownie Wilson provided a presentation on efforts to measure High Plains Aquifer system in Kansas which includes the Ogallala Aquifer. Connie Owen provided an overview of applicable statutes and regulations on groundwater use from the Ogallala Aquifer in Kansas. Following these presentations and further discussion, the below language was drafted for consideration by the full KWA based on feedback provided by Committee members:

The Kansas Water Authority recommends

- *The policy of planned depletion of the Ogallala Aquifer is no longer in the best interest of the State of Kansas.*
- *A formal collaborative process is needed to establish data-driven goals, metrics, and actions to halt the decline of the Ogallala Aquifer while promoting flexible and innovative management within a timeframe that achieves agricultural productivity, thriving economies, and vibrant communities – now and for future generations of Kansans.*
- *The collaborative process should engage state agencies, regional advisory committees, local stakeholders, groundwater management districts, and the Kansas Water Authority.*

Committee members discussed and took action to approve the previously listed language for consideration and potential action by the full KWA at the December 2022 meeting in Colby. Four members of the committee voted to approve the recommended language for consideration by the full KWA, with one voting member abstaining from the vote.

If approved by the full Kansas Water Authority, these recommendations pertaining to sustainability of the Ogallala Aquifer in Kansas would be included within the 2023 Kansas Water Authority Annual Report to the Governor and Legislature.

The KWA Ogallala Aquifer Committee recommends KWA approval of the proposed policy and action statements regarding sustainability of the Ogallala Aquifer in Kansas.

MEMO

Kansas Water Office
900 SW Jackson Street, Suite 404
Topeka, KS 66612
Phone: (785) 296-3185
Fax: (785) 296-0878
www.kwo.ks.gov

DATE: December 6, 2022
TO: Kansas Water Authority
FROM: Victoria Potts
RE: 2023 KWA Annual Report to the Governor & Legislature

The Kansas Water Authority (KWA) submits a report to the Governor and Kansas Legislature on an annual basis highlighting the past year's accomplishments and providing priorities/recommendations of the KWA in advance of the upcoming legislative session. Kansas Water Office staff have developed a preliminary draft of this year's report for review and approval by the KWA in advance of submittal to Governor Laura Kelly and the 2023 Kansas Legislature. A draft copy of the 2023 Annual Report will be reviewed with the KWA during the December 14 meeting.

The Kansas Water Office recommends the Kansas Water Authority approve the 2023 Annual Report to the Governor and Legislature with final editorial discretion based on feedback provided by the Kansas Water Authority during the December 14 meeting.

MEMO

Kansas Water Office
900 SW Jackson Street
Topeka, KS 66612
Phone: (785) 296-3185
Fax: (785) 296-0878
www.kwo.ks.gov

DATE: December 1, 2022
TO: Kansas Water Authority
FROM: Jeremiah Hobbs, RAC Operations Committee Chair
RE: RAC Membership & RAC Messages

The KWA RAC Operations Committee met on November 30, 2022, via GoTo Meeting. Discussion from the meeting included the following topics:

- RAC Membership
  - New Membership Application
- RAC Messages to the KWA from the Upper Republican and Missouri RACs

RAC Membership

The Committee reviewed and discussed the application of John Garris from Independence, KS for membership on the Verdigris RAC. The following membership recommendation was approved by the RAC Operations Committee:

- Recommend John Garris be considered for the *Public Water Supply (cc)* category with a term expiration of June 2023.

The KWA RAC Operations Committee recommends KWA approval of the proposed RAC membership action for the Verdigris RAC.

Upper Republican Regional Advisory Committee:

Message:

"Upper Republican Regional Advisory Committee would like to register its objection to the waste of water perpetrated by the Southwest Groundwater Management District No. 3. The Kansas Water Appropriation Act does, on numerous occasions, reference the "beneficial use of water". Most succinctly in K.S.A 82a-718 (a) All Appropriations of water must be for some beneficial purpose. Under K.A.R 5-1-1 Beneficial uses are specifically defined, please note that "Proof of Concept (POC)" is not among those listed. We feel that the act of moving water from one recognized source (surface water of the Missouri River) to another (groundwater of the Arkansas River in GMD 3 or any other basin) and simply dumping it on the ground can only be construed as a poorly disguised attempt at Artificial Recharge.

In "concept" Artificial Recharge is in fact already recognized as a beneficial use of water under K.A.R. 5-1-1. Furthermore, this "concept" is the subject of several other regulations. Specifically, K.A.R. 5-5-7 entitled Waste of water provides, "Each application for a permit to appropriate water for artificial recharge shall include a methodology of accounting for water stored in a basin storage area both on an annual basis and on a cumulative basis so that recharge credits can be calculated." K.A.R 5-12-1 through 4 provide better definition of the accounting and measurement methodologies to be used in conjunction with any permitted artificial recharge project."

It is the opinion of the Upper Republican Regional Advisory Committee, based on the statutes and regulations referenced above, that recent and previous actions by the Southwest Kansas Groundwater Management District No. 3 constitute a waste of water and should not be permitted in the future."

Background: In response to recent and previous activities from Southwest Kansas Groundwater Management District Number 3, the Upper Republican RAC has expressed opposition to the district's "Proof of Concept" water transfer proposals submitted to the Division of Water Resources; the RAC interprets state regulation as indicating these activities to be a waste of water and unauthorized under state regulation.

Staff Input: The Kansas Water Office, along with the Corps of Engineers, led the 2015 review of the potential project to transfer water from the Missouri River to western Kansas. The *Long-Term Vision for the Future of Water Supply in Kansas* included a section to "allow for the transfer of water supplies between basins where feasible and cost-effective." The project outlined in the 1982 Corps of Engineers study, and updated in 2015, was determined to not be viable or cost effective. We recognize that there are interests that continue to evaluate alternatives to the system as envisioned. No subsequent specific proposal or plan has been submitted to date.

Proposed Resolution: The Kansas Water Authority agrees with the Upper Republican RAC's objection to Groundwater Management District No. 3's proposed activity (approved under DWR Term Permit, File No. 202090910) based on the statutes and regulations cited by the Upper Republican RAC, and that all future applications for artificial recharge must meet regulatory criteria under the Kansas Water Appropriation Act.

Missouri Regional Advisory Committee:

Message:

"The Missouri Regional Advisory Committee (RAC) would like the KWA to discuss the Proof of Concept (POC) related to water transfer from the Missouri River to locations in western Kansas and Colorado. The current POC was approved on June 1, 2022. However, a letter written on July 27, 2021, asked questions of Groundwater Management No. 3 (GMD 3) that the Missouri RAC is not sure were answered in the response by Mark Rude to the letter. Mark Rude presented at the February 2, 2022 Missouri RAC meeting and was asked multiple questions, one of which was if GMD 3 would notify the Missouri RAC if any additional transfers were to take place prior to approval. The RAC was not contacted by GMD 3 concerning this transfer.

In the letter addressed to Mark Rude, GMD 3, dated July 27, 2021, from Earl D Lewis, PE, Chief Engineer, concerning an application for Interstate Water Transfer POC-Term permit No. 20209091, Mr. Lewis responded with four conditions that needed to be met before the application could be approved. The letter also asked for Mr. Rude to provide a plan with the primary steps planned to scale up to a full water transfer. A request was also made in the letter that a report summarizing what has been learned or not learned be included with the application. The Missouri RAC would like answers to some of these questions/requests and would like to have a better understanding of how KSA 82a-726, the requirement that KS coordinate with the Colorado Attorney General was accomplished before the permit was approved.

In reviewing the response dated August 2, 2021 from Mr. Rude concerning the questions above, the Missouri RAC would like to request more information concerning:

1. *How is GMD3 showing that the source water is above base-flow stage in the stream when it is being withdrawn from the site located at 2-10-23E in Leavenworth, KS?*

2. *Mr. Rude discusses in paragraph 5 of his letter dated August 2, 2021, "Beneficial purpose means that water must be used for legitimate, documentable needs and cannot be hoarded by, or for, those without needs for it", they also mention "unused Missouri River flows". How is GMD3 documenting that there is a beneficial purpose that is legitimate? How is GMD3 documenting if there is a need for the water to remain in the Missouri River? Were all public water users downriver from the collection site contacted beforehand to find out if the purpose would be beneficial and if there was a need for the water in its current location? What and who defines unused flows?*

3. *What is the scientific justification for this POC? How is GMD3 showing scientifically that this POC will not degrade the ambient groundwater quality in the storage area? What are the criteria for success and how will this be measured?*

4. *How is GMD3 proving that the POC is replenishing the water supply in the aquifer? Is there actual data proving that the previous POC helped recharge the aquifer? Or has a study been made that shows how much water would be needed annually to resupply the aquifer? If so, where is the study found? What additional adaptation strategies has GMD3 considered as alternative to the water transfer, similar to proven strategies that other GMDs are currently implementing?*

5. *Where is the proposed plan for scaling up from the small POC to a full-scale project? What specific results and what definite future plans is this POC trying to prove?*

6. *Why is a portion of the water from the Missouri River being transferred to the State of Colorado? Was there a coordination between KS and the Colorado Attorney General before the permit was approved? If so, why wasn't that communication included with the approval or request of the permit?"*

Background: The Missouri River is the largest river that flows through or is adjacent to the State of Kansas. It is also the longest river in North America and its basin covers one-sixth of the lower 48 states. The mainstem reservoir system includes six large dams that have the capacity to store over 74 million-acre feet (MAF), not counting exclusive flood control storage, about three times the river's average annual runoff above Sioux City, Iowa, located just downstream of the last reservoir on the mainstem reservoir system.

While issues related to the use of water from the river are complex, it potentially provides a very large water supply for use in Kansas. The history and the hydrological record indicate that the flows of the Missouri River are highly variable experiencing large floods and major droughts in the basin.

Under the Corps 1982 Study, quantification of water availability was simplified through assumptions. The 2015 update also used this simplified assumption. Availability is assumed when Missouri River flows exceeded the navigation and water supply intake structure targets; 41,000 cfs during navigation support season and 15,000 cfs outside of the navigation support season.

The Kansas Aqueduct system was evaluated for water transfer delivery systems of 2,000, 6,000 and 10,000 cfs. It is assumed that construction would occur over a 20-year period. The updated total construction costs for the system found to be the most cost efficient (6,000 cfs transfer capacity) is $12,231,000,000. The interest during a 20-year construction period is estimated to be $5,788,000,000 bringing the total investment cost to $18,019,000,000. Interest during the 20-year construction period was 7.375% in the 1982 study but only 3.5% for the 2015 update.

Assuming the 6,000 cfs diversion rate, the annual costs including operation and maintenance, interest and amortization and energy costs were determined to be $1,084,161,000. The annual energy costs were estimated to be $395,000,000, which assumes a total of 8.78 million megawatt hours needed to operate the system annually. The very preliminary estimate of the 2014 delivered water costs is approximately $450 per acre foot. These costs did not include costs associated with mitigation, legal challenges, or costs to get the water from the terminal reservoir to the field. Rough estimates are that these additions could double the overall cost.

The original Proof of Concept (POC) took place in September 2020 with nearly 6,000 gallons of water being pulled from the Missouri River and delivered to the dry Arkansas River bed. According to the POC, data analysis and a final report from the inter-basin transfer were supposed to be completed. Neither of these items have been submitted to date.

Staff Input: As this topic has received increased media attention, this message presents the opportunity for the KWA to have further discussion.

The Kansas Water Office, along with the Corps of Engineers, led the 2015 review of the potential project to transfer water from the Missouri River to western Kansas. The *Long-Term Vision for the Future of Water Supply in Kansas* included a section to "allow for the transfer of water supplies between basins where feasible and cost effective." As can be seen from the background information, the project outlined in the 1982 Corps of Engineers study, and updated in 2015, was determined to not be viable or cost effective.

We recognize that there are interests that continue to evaluate alternatives to the system as envisioned. No subsequent projected proposal or plan for such transfer has been submitted to date.

Proposed Resolution: The RAC Operations Committee supports the Missouri RAC's request for additional information from GMD3 and the Division of Water Resources as reflected in their message dated November 7, 2022. The RAC Operations Committee encourages the full KWA to engage in a discussion of the need for this information and any related aspect of this topic.

The KWA RAC Operations Committee recommends approval of the proposed resolutions, further discussion, and requests for additional information, as reflected in the messages from the Upper Republican and Missouri RACs.