# **Monthly Progress Report**

December 2017



















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### **Program Overview**

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#### Summary

The City of Enid, Oklahoma (City) has historically enjoyed an adequate supply of water resources to support consumers in Enid and its wholesale customers. However, the City's annual water demand has begun to exceed the annual yield of the existing groundwater supply, which has resulted in depletion of the aquifer system. To address this supply gap, the City initiated a Water Master Plan (by others) that recommended developing a new surface water supply from Kaw Lake to supplement the existing groundwater supply.

#### **Key Components**

#### **Intake and Intermediate Booster Pump Stations**

The intake and intermediate booster pump station will provide the means to pump water from Kaw Lake to Enid. This will include an intake structure on Kaw Lake and an intake pumping station. An intermediate pump station will be located about two-thirds of the way to Enid along the pipeline and will provide additional pressure necessary to convey the design flow to the treatment plant site.

#### **Pipeline**

The pipeline will convey the raw water from the proposed Kaw Lake intake structure to the proposed water treatment plant along a 70-mile direct corridor.

#### **Terminal Storage Reservoirs**

Terminal storage is employed to provide a constant supply of raw water to the new water treatment plant, and it can also be utilized to minimize costs associated with conveyance of raw water. As such, the main components of the terminal storage assessed for the current project were emergency storage and equalization storage. For this program, the City desires to separate the volume dedicated for equalization storage from the volume for emergency storage. Therefore, the terminal storage is divided into two components:

- Equalization (TSR EQ) storage used on a routine basis to meet peak demands
- Emergency (TSR EM) storage used only when raw water conveyance is not in service

#### **Water Treatment Plant**

A new surface water treatment plant will be needed to meet the water quality objectives necessary to provide safe drinking water as well as to meet the aesthetic desires such as taste and odor. These objectives can be met by a combination of conventional treatment to produce safe drinking with the addition of polishing to reduce objectionable tastes and odors.

#### Distribution

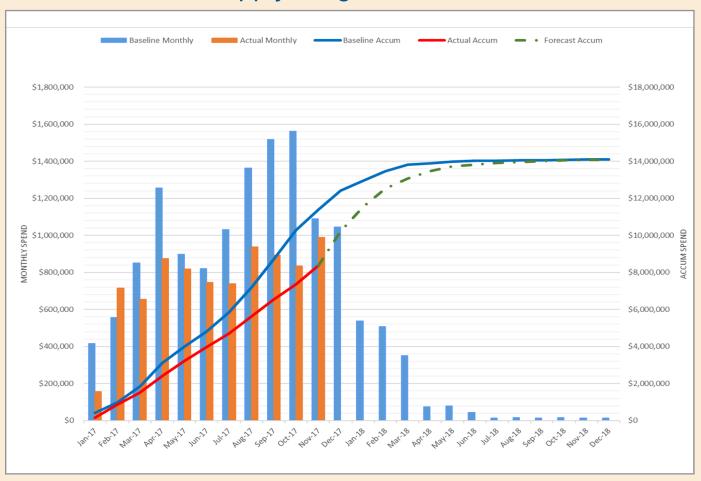
Distribution system improvements are necessary to blend the existing groundwater with the treated surface water and to connect the blended water into the existing City of Enid water distribution network.





## **Program Finance - Phase 2**

### Kaw Lake Water Supply Program CashFlow



#### **Summary**

As of December 1, the accumulate spent is 59% and the planned spend is 81%. A portion of the reduced spending is a result of higher than expected project execution efficiency. Additionally, tasks such as the Design Consultant Standards Manual and the Program Strategy Manual have been deferred to 2018, resulting in a shift of the projected cash flow. Finally, large items such as the geotechnical investigations and environmental field work have shifted to later in 2017, or were not completed at all due to inaccessible private property.

## **Program Schedule - Phase 2**

### Kaw Lake Water Supply Program - November 2017



#### Summary

As of December 1, the schedule has an overall progress of 74% with a planned progress of 86%. The shift in the target progress shown above is a product of the implemented recovery plan. The recovery plan allows for additional resources to be utilized for the completion of the 30% design and updated cost estimate to maintain their original submittal date while deferring less critical activities, such as the Design Consultant Standards Manual and Program Strategy Manual, to 2018.



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### **Program Administration**

### **Program Administration**

### **Scope of Services**

Garver is providing project administration and controls initiation through Phase 2, including reporting on the various aspects of the program management, scheduling and budget status updates, coordination of regulatory and funding agencies, as well as stakeholders and public meetings. Primary deliverables include a Design Consultants Standards Manual and updating the Program Strategy Manual. In addition, the Garver Technical Review Committee is providing review and oversight of the deliverables produced by the Infrastructure Teams.



### **Project Update**

The Program Management Team continues to work on developing most of the items in the scope of services. Program strategy development continues with final evaluation of Program Management Information Systems. Three Program Management Information Systems were demonstrated in person. Based on the demonstrations, the team identified two finalists that are scheduled for 'test drives' to confirm the user interface and preferred functionality. The program management information system will be selected in December and implementation is planned to begin in Phase 3. Project risk management activities continue and the infrastructure teams are incorporating mitigations in the 30% designs where possible. Draft 30% designs and cost estimates are under internal review and most of the draft Preliminary Design Reports have been submitted to the City staff for review. The Design Consultant Standards Manual outline is developing and the Program Strategy for the life cycle is being crafted.



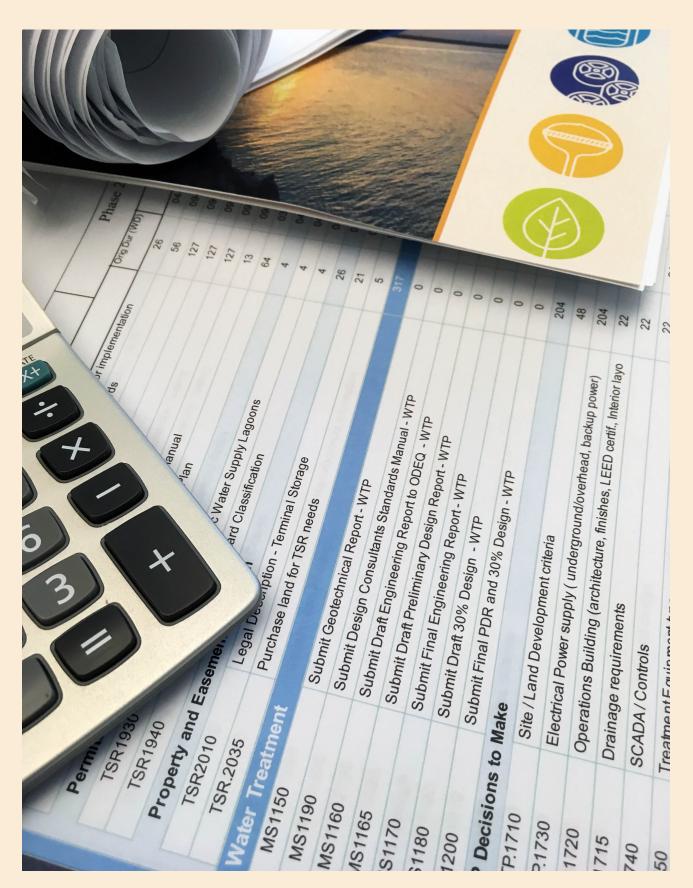
### Completed

- Organization and planning activity on the Program Strategy Manual: Chapter 1 Vision Goals, and Objectives and Chapter 2 Master Quality Plan are complete
- Conducted Program Management Information System demonstrations for the City staff and analyzed procurement options
- Schedule and cost updates of the Master Project Schedule
- Four cross discipline and twelve technical reviews of draft 30% designs and draft Preliminary Design Reviews for all Kaw Lake Water Supply system elements
- Ongoing risk management



### Future Activities

- Develop Program Strategy Manual for Phase 3
- Continue technical reviews of draft 30% designs and cost estimates for individual project disciplines
- Submit the remaining draft Preliminary Design Reports to City staff for review
- Planning and development of processes and tools for Phase 3 management, such as work flows, special contract provisions and standardizations for program work







## **Intake and Pump Stations**

### **Scope of Services**

The scope of services includes surveying, geotechnical investigations, preliminary (30% complete) design, investigation of property acquisition and development of design consultant standards for a new raw water intake and pumping station located on Kaw Lake at Intake Site No. 2 and an intermediate booster pump station as identified in Phase 1 of the project.

The intake is expected to include a shaft and micro tunnel with vertical turbine pumps in a parallel configuration with a design capacity to meet the targets identified during Phase 1 of the Program. The intermediate booster pump station is expected to consist of parallel horizontal split case pumps housed in an at-grade structure. The intermediate booster pump station is also expected to include approximately 5 million gallons of stored raw water within two ground storage tanks.



### **Project Update**

The team completed the development of the intake pump station and intermediate booster pump station preliminary design and opinion of probable construction cost for the internal Technical Review to be completed in December. The preliminary design phase submittal will include design drawings that represent approximately 30% of final design documents and the associated opinion of probable construction, operational, and maintenance costs.



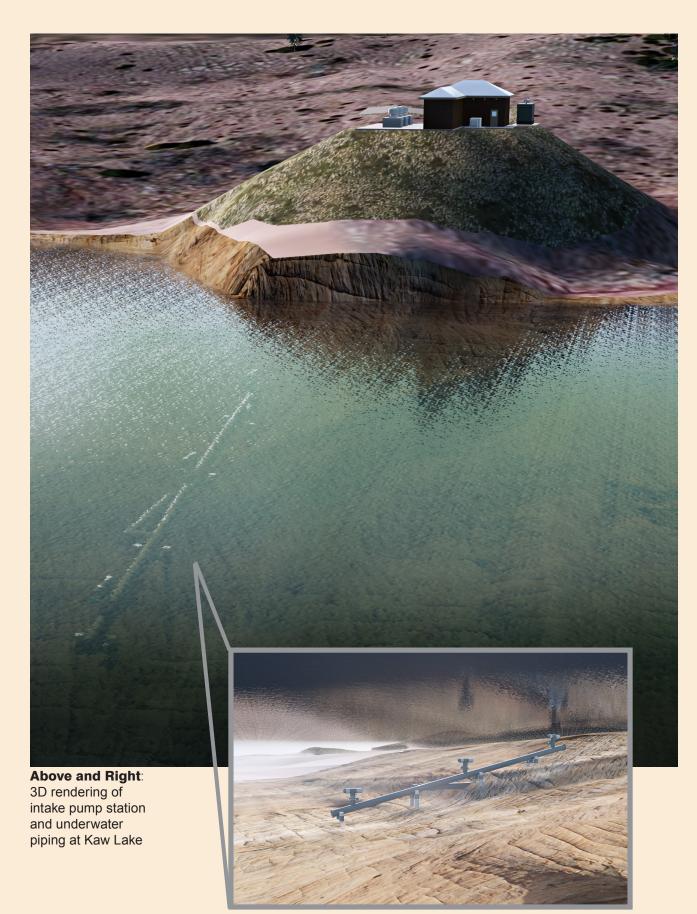
### Completed

- Completed draft preliminary design of intake pump station and opinion of probable construction cost; submitted to Technical Review Committee
- Completed draft preliminary design of intermediate booster pump station and opinion of probable construction cost; submitted to Technical Review Committee
- Received and reviewed Intermediate Booster Pump Station 30% Design Subsurface Investigation Report

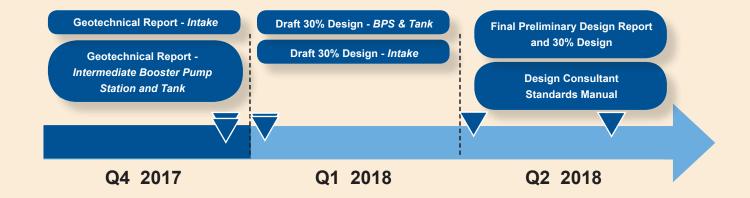


### **Future Activities**

- Receive and review Draft Intake Subsurface Investigation Report
- Refine and revise preliminary designs and opinion of probable construction cost based on Technical Review Committee comments
- Submit draft preliminary design and opinion of probable construction cost to City staff for review

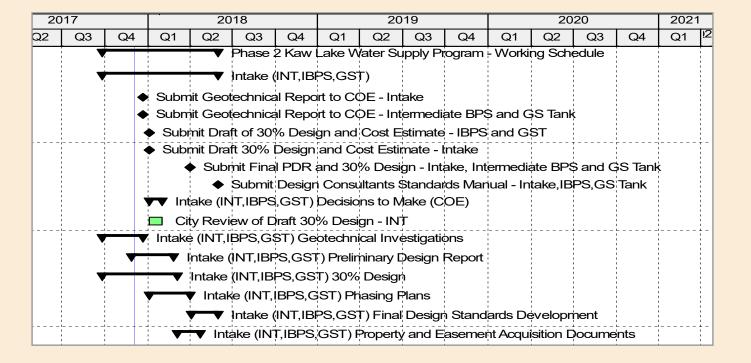






### **Project Schedule**

Activity ID	Activity Name	Orig Dur (WD)	Finish
Phase 2 Kaw Lal	ke Water Supply Program - Working Schedule	173	01-Jun-18
Intake (INT,IBPS,	GST)	173	01-Jun-18
MS1010	Submit Geotechnical Report to COE - Intake	0	20-Dec-17
MS1020	Submit Geotechnical Report to COE - Intermediate BPS and GS Tank	0	20-Dec-17
MS1045	Submit Draft of 30% Design and Cost Estimate - IBPS and GST	0	04-Jan-18*
MS1035	Submit Draft 30% Design and Cost Estimate - Intake	0	04-Jan-18*
MS1050	Submit Final PDR and 30% Design - Intake, Intermediate BPS and GS Tank	0	02-Apr-18*
MS1040	Submit Design Consultants Standards Manual - Intake, IBPS, GS Tank	0	01-Jun-18*
Intake (INT,IBPS,G	Intake (INT,IBPS,GST) Decisions to Make (COE)		01-Feb-18
INT.1266	City Review of Draft 30% Design - INT	20	01-Feb-18
Intake (INT,IBPS,GST) Geotechnical Investigations		48	20-Dec-17
Intake (INT,IBPS,G	Intake (INT,IBPS,GST) Preliminary Design Report		26-Feb-18
Intake (INT,IBPS,GST) 30% Design		110	05-Mar-18
Intake (INT,IBPS,GST) Phasing Plans		62	02-Apr-18
Intake (INT,IBPS,GST) Final Design Standards Development		43	01-Jun-18
Intake (INT,IBPS,G	ST) Property and Easement Acquisition Documents	35	23-Apr-18





## **Pipeline**

### Scope of Services

The scope of services includes surveying, geotechnical, alignment analysis, preliminary (30% complete) design, investigation of future property acquisition and development of design consultant standards for a new raw water pipeline from Kaw Lake at Intake Site No. 2 to a new water treatment plant as identified in Phase 1 of the project. The pipeline will consist of approximately 70 miles of pipe along the direct corridor with a design capacity to meet the targets identified during Phase 1 of the Program. This task generally consists of providing final pipeline alignment selection within the Direct Corridor and preparation of aerial background



### Project Update

The team is preparing updates to the mapbook and parcel tracking information to provide weekly updates to City staff. The team is continuously updating the web mapping site to allow the City and team members to see updated alignments, as well as adding the ability to track parcel access. The Pipeline Team is heavily involved in coordinating with other project teams on proposed layouts, connections, and various other design criteria, as well as coordinating and reviewing geotechnical field investigations. The team continued developing pipeline design criteria for the Preliminary Design Report. A cross discipline review of the pipeline Preliminary Design Report was completed in November. The Draft Pipeline Preliminary Design Report will be submitted to the City in early December. Most of the geotechnical borings in public right-of-way have been completed. The remaining geotechnical investigations are being evaluated based upon access granted at this point in the program. The team is also preparing alternate boring locations, where possible, to aid in gaining access to the remaining bore locations. Additionally, some geotechnical bores have been eliminated due to inaccessibility, while others have been delayed due to harvesting schedules. The analysis will continue to move forward with the information obtained to date, filling in the gaps with some assumptions, and then confirming the assumptions made once final soil analysis is complete. The preparation of 30% design drawings is ongoing and is anticipated to be ready for internal Technical Review in early December.



#### Completed

- Coordinated geotechnical investigation needs along the alignment
- Ongoing updates to the web mapping tool and mapbook for the entire pipeline alignment
- Revised draft Preliminary Design Report based upon Cross-Discipline Review and Technical Review Committee comments reveived



### **Future Activities**

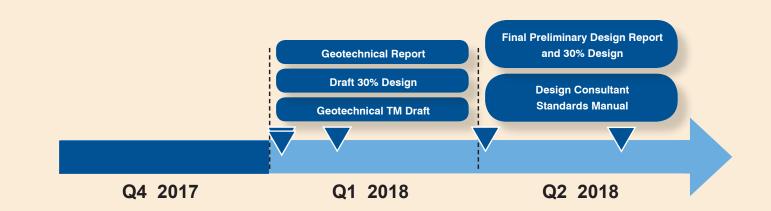
- Submit draft Preliminary Design Report for City review
- Complete the preliminary 30% design drawings for internal technical review
- Continue coordination of geotechnical investigation needs and laboratory testing of available samples along alignment
- Continue to perform preliminary geotechnical analysis with available data obtained to date
- Refine and revise preliminary designs and opinion of probable construction cost based upon Technical Review Committee comments
- Submit draft preliminary design and opinion of probable construction cost to City staff for review





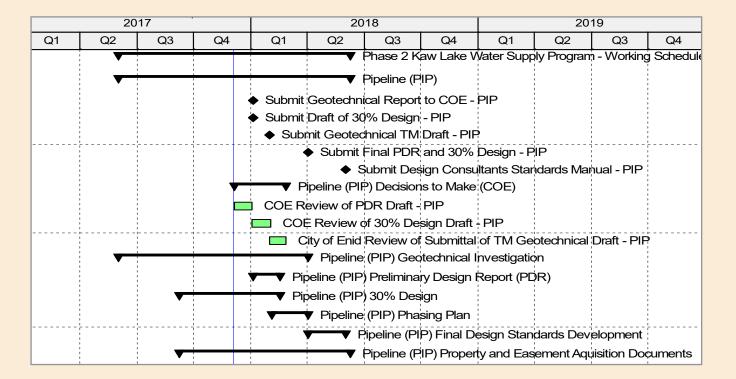






## **Project Schedule**

Activity ID	Activity Name	Orig Dur (WD)	Finish
Phase 2 Kaw Lake Wa	ater Supply Program - Working Schedule	238	08-Jun-18
Pipeline (PIP)		238	08-Jun-18
MS1060	Submit Geotechnical Report to COE - PIP	0	03-Jan-18
MS1080	Submit Draft of 30% Design - PIP	0	04-Jan-18*
MS1075	Submit Geotechnical TM Draft - PIP	0	29-Jan-18*
MS1090	Submit Final PDR and 30% Design - PIP	0	02-Apr-18*
MS1085	Submit Design Consultants Standards Manual - PIP	0	01-Jun-18*
Pipeline (PIP) Decisions t	Pipeline (PIP) Decisions to Make (COE)		26-Feb-18
PIP.COED.PDRF.PP.S1	COE Review of PDR Draft - PIP	20	02-Jan-18
PIP.COED.30DF.PP.S1	COE Review of 30% Design Draft - PIP	20	01-Feb-18
PMx.COED.TRCD.GT.00	City of Enid Review of Submittal of TM Geotechnical Draft - PIP	10	26-Feb-18
Pipeline (PIP) Geotechnic	cal Investigation	195	02-Apr-18
Pipeline (PIP) Preliminary	Design Report (PDR)	33	16-Feb-18
Pipeline (PIP) 30% Design		91	15-Feb-18
Pipeline (PIP) Phasing Plan		42	02-Apr-18
Pipeline (PIP) Final Design Standards Development		43	01-Jun-18
Pipeline (PIP) Property and Easement Aquisition Documents		171	08-Jun-18







## **Terminal Storage**

### **Scope of Services**

The scope of services includes surveying, geotechnical, preliminary (30% complete) design, investigation of property acquisition and development of design consultant standards for a new raw water terminal storage in two separate locations: one for emergency storage and one for equalization storage as identified in Phase 1 of the project.



### Project Update

The conceptual layout of the equalization storage basin utilizes three equally sized basins to allow for flexibility and phasing. The Terminal Storage Team continues to coordinate with the Water Treatment Plant and Distribution Team as the conceptual site design, storm water drainage, process flow, and drying beds nears completion.

The civil site design has been completed for internal technical review, including preliminary grading, road locations, and stormwater design. The drainage swale west of the terminal storage flowing north to south will be relocated, moving the swale discharge point approximately 500 feet to the west. Geotechnical investigation and soil testing on the equalization site have been completed.

The location of the emergency storage basin has been established, and site survey, environmental, and geotechnical activities have been completed with final reports pending internal technical review.



### Completed

- Received and reviewed Subsurface Investigation Report for both the Equalization and Emergency Terminal Storage Reservoirs
- Met with Oklahoma Department of Environmental Quality on possible terminal storage variance
- Completed draft preliminary design and opinion of probable construction cost for internal technical review for both the Equalization and Emergency Terminal Storage Reservoirs



### **Future Activities**

- Submit the Subsurface Investigation Report for the Emergency Terminal Storage Reservoir
- Complete the technical memorandum pertaining to the design criteria associated with the stormwater handling
- Refine and revise preliminary designs and opinion of probable construction cost based on Technical Review Committee comments
- Submit draft preliminary design and opinion of probable construction cost to City staff for review



**Right**: Example terminal storage reservoir under construction



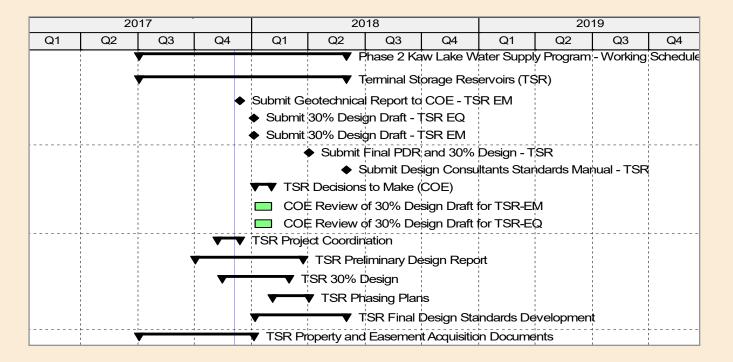






# **Project Schedule**

Activity ID	Activity Name	Orig Dur (WD)	Finish
Phase 2 Kaw Lake Wa	ater Supply Program - Working Schedule	234	01-Jun-18
Terminal Storage Res	servoirs (TSR)	234	01-Jun-18
MS1110	Submit Geotechnical Report to COE - TSR EM	0	12-Dec-17
MS1132	Submit 30% Design Draft - TSR EQ	0	04-Jan-18*
MS1130	Submit 30% Design Draft - TSR EM	0	04-Jan-18*
MS1140	Submit Final PDR and 30% Design - TSR	0	02-Apr-18*
MS1120	Submit Design Consultants Standards Manual - TSR	0	01-Jun-18*
TSR Decisions to Make	TSR Decisions to Make (COE)		01-Feb-18
TSR.COED.30DF.EM.00	COE Review of 30% Design Draft for TSR-EM	20	01-Feb-18
TSR.COED.30DF.EQ.00	COE Review of 30% Design Draft for TSR-EQ	20	01-Feb-18
TSR Project Coordination		5	12-Dec-17
TSR Preliminary Design	Report	121	23-Mar-18
TSR 30% Design		74	01-Mar-18
TSR Phasing Plans		42	02-Apr-18
TSR Final Design Standards Development		106	01-Jun-18
TSR Property and Easement Acquisition Documents		21	04-Jan-18





### **Water Treatment Plant**

### **Scope of Services**

The scope of services includes surveying, geotechnical, preliminary (30% complete) design, investigation of property acquisition, and development of design consultant standards for a new Enid water treatment plant located adjacent to the City's current water treatment plant No. 2.

The planned capital improvements include construction of a new conventional water treatment plant with ozone and granular activated carbon facilities to meet capacity and treatment goals identified during Phase 1 of the Program.



### Project Update

The draft 30% drawings have completed internal cross-discipline and technical reviews and are being finalized for City review. Final geotechnical reports for the water treatment plant site have been received and completed. Development of the 30% cost estimate has been completed and is currently in the review process. The granular activated carbon treatability testing is ongoing and continues to be monitored. A draft executive summary and introductory materials for the final preliminary design report have been completed and are under review.



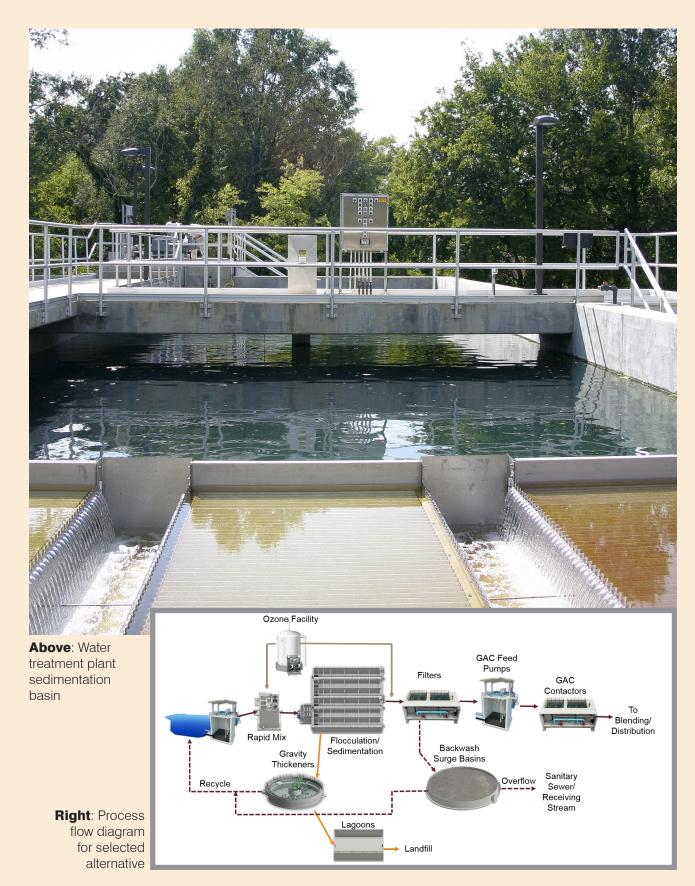
### Completed

- Internal technical review of the draft preliminary design
- Updated opinion of probable construction cost for internal technical review
- Draft Executive Summary, Introduction, and System Breakdown Structure for Preliminary Design Report



### **Future Activities**

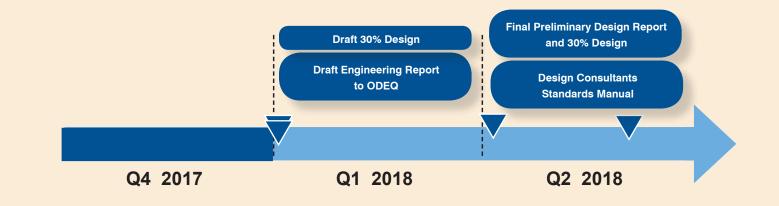
- · Treatability analysis and reporting
- Engineering Report submission to the Department of Environmental Quality
- Refine and revise preliminary designs and opinion of probable construction cost based on Technical Review Committee comments
- Submit draft preliminary design and opinion of probable construction cost to City staff for review





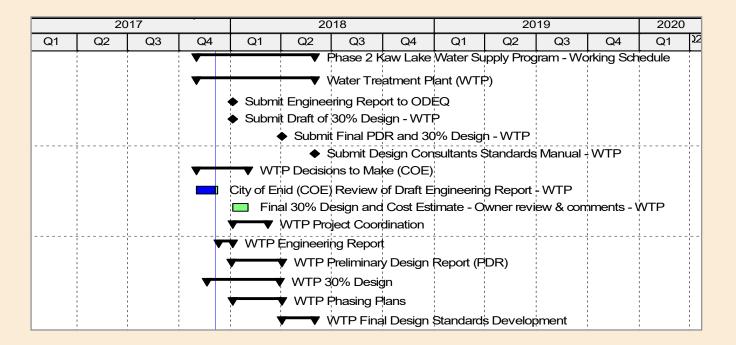
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## **Project Schedule**

Activity ID	Activity Name	Orig Dur (WD)	Finish
Phase 2 Kaw Lake W	ater Supply Program - Working Schedule	147	01-Jun-18
Water Treatment Plan	nt (WTP)	147	01-Jun-18
MS1160	Submit Engineering Report to ODEQ	0	04-Jan-18
MS1180	Submit Draft of 30% Design - WTP	0	04-Jan-18*
MS1200	Submit Final PDR and 30% Design - WTP	0	02-Apr-18*
MS1190	Submit Design Consultants Standards Manual - WTP	0	01-Jun-18'
WTP Decisions to Make	WTP Decisions to Make (COE)		01-Feb-18
WTP.COED.ENRP.RE.00	City of Enid (COE) Review of Draft Engineering Report - WTP	20	08-Dec-17
WTP.1904	Final 30% Design and Cost Estimate - Owner review & comments - WTP	20	01-Feb-18
WTP Project Coordination	WTP Project Coordination		09-Mar-18
WTP Engineering Report		22	04-Jan-18
WTP Preliminary Design Report (PDR)		67	02-Apr-18
WTP 30% Design		90	30-Mar-18
WTP Phasing Plans		62	02-Apr-18
WTP Final Design Standards Development		43	01-Jun-18





### **Distribution**

#### **Scope of Services**

Generally, the scope of services includes surveying, geotechnical, preliminary (30% complete) design, investigation of property acquisition, and development of design consultant standards for new distribution infrastructure (pumping, storage, and piping) as identified in Phase 1 of the project.

The pumping improvements will include the construction of a new high service pump station adjacent to the water treatment plant capable of conveying flow to both pressure planes and the decommissioning of the existing high service pump stations. The storage improvements will consist of adding a new 8 million gallon ground storage tank adjacent to the new high service pump station. The piping improvements will include the piping necessary to blend the groundwater supply with the treated surface water prior to the high service pump station, as well as the piping necessary to convey water to the east pressure plane.



### **Project Update**

The preliminary design work for the transmission main, high-service pump station, blended storage tank, and site civil was completed, and the drawings were submitted for internal technical review. Additionally, the draft Preliminary Design Report was completed and submitted for internal review. The geotechnical investigations along the transmission main were completed, and work continues processing property survey information along the transmission main corridor.



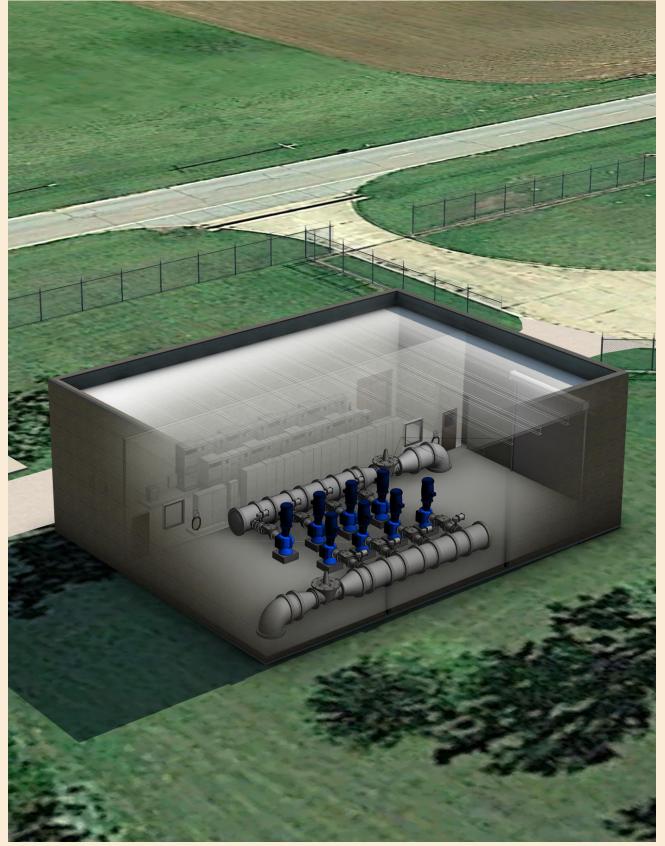
### Completed

- Completed hydraulic modeling of water age
- Developed construction sequencing
- Completed draft preliminary design
- Completed internal Preliminary Design Report
- Completed geotechnical investigations along transmission main alignment
- Updated the opinion of probable construction cost for internal review



### **Future Activities**

- Update Preliminary Design Report and submit for City review
- Continue property surveys along transmission main corridor
- Refine and revise preliminary designs and opinion of probable construction cost based on Technical Review Committee comments
- Submit draft preliminary design and opinion of probable construction cost to City staff for review

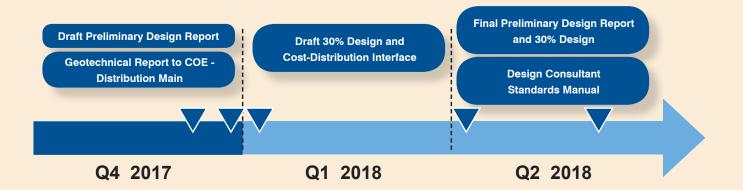


**Above**: Conceptual layout of high-service (distribution) pump station



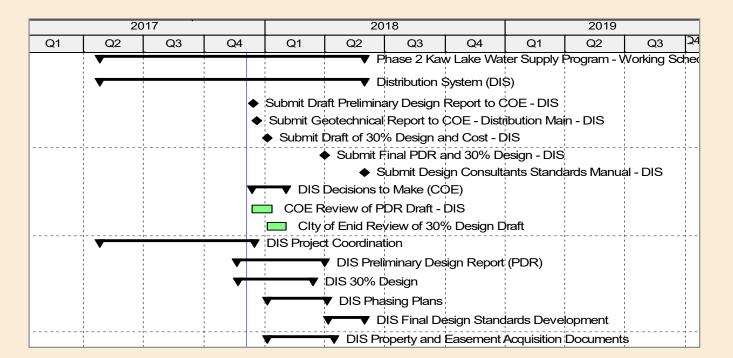






## **Project Schedule**

Activity ID	Activity Name	Orig Dur (WD)	Finish
Phase 2 Kaw Lake W	ater Supply Program - Working Schedule	312	01-Jun-18
Distribution System (	(DIS)	312	01-Jun-18
MS1220	Submit Draft Preliminary Design Report to COE - DIS	0	13-Dec-17
MS1215	Submit Geotechnical Report to COE - Distribution Main - DIS	0	20-Dec-17
MS1230	Submit Draft of 30% Design and Cost - DIS	0	04-Jan-18*
MS1250	Submit Final PDR and 30% Design - DIS	0	02-Apr-18*
MS1240	Submit Design Consultants Standards Manual - DIS	0	01-Jun-18*
DIS Decisions to Make (COE)		35	01-Feb-18
DIS.COED.PDRF.xx.R1	COE Review of PDR Draft - DIS	20	11-Jan-18
DIS.COED.30DF.xx.R1	Clty of Enid Review of 30% Design Draft	20	01-Feb-18
DIS Project Coordination	1	191	15-Dec-17
DIS Preliminary Design	Report (PDR)	92	02-Apr-18
DIS 30% Design		79	15-Mar-18
DIS Phasing Plans		65	05-Apr-18
DIS Final Design Standards Development		40	01-Jun-18
DIS Property and Easem	nent Acquisition Documents	72	16-Apr-18







### **Environmental**

#### **Scope of Services**

This scope of work includes activities to support document preparation as required of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) in accordance with the procedures set forth in Council on Environmental Quality Regulations Implementing the Procedural Provision of NEPA (40 CFR 1500-1508) and in the U.S. Army Corps of Engineers (USACE) Procedures for Implementing NEPA (33 CFR 230). The U.S. Army Corps of Engineers, Tulsa District, will serve as the lead federal agency for the project.

It is anticipated that the NEPA Class of Action for this Program will be an Environmental Assessment and will analyze the impacts of a No Build and one Build Alternative (Proposed Action) for each of the project's infrastructure components [intake, pipeline, terminal storage reservoir (emergency and equalization), treatment plant, and distribution system].



### **Project Update**

Biological and cultural field studies are complete for the intake, water treatment plant, and distribution. Biological field studies for the pipeline are approximately 90% complete. Remaining properties to be surveyed include three tribal parcels and twelve parcels where access has been denied. The Ponca Tribe provided signed permission forms to enter the two remaining properties where they have ownership interest. The State Archaeologist has indicated approval with the deep testing methods pending some additional information which is in progress.

Work on the biological reports is ongoing. Shape files of aquatic resources constraints are complete and are available in the on-line mapping.



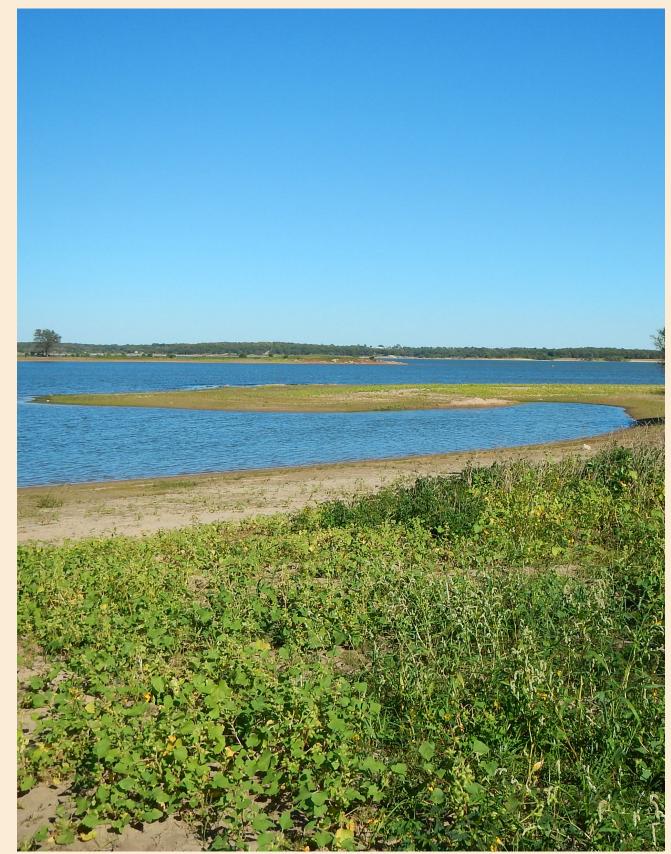
### Completed

- Intake, water treatment plant, and distribution biological and cultural resource studies
- Approximately 90% of the biological field work along the pipeline
- Biological field work at terminal storage reservoir off-site emergency storage site complete – no findings
- Approximately 60% complete with wetland and threatened and endangered species reports
- Approximately 75% complete with the hazardous materials report



### **Future Activities**

- Complete biological studies for tribal property and other private property where access has been denied
- Complete cultural resources field work (estimated end of January 2018). Decision on deep testing has tentative approval from the U.S. Army Corps of Engineers and the State Archeologist pending some additional information in progress.
- Develop scope and fee for archeologist trenching and request City approval
- Additional community meeting with Ponca Tribe as requested
- Continue work on wetland and threatened and endangered species reports
- Submit hazardous materials report in January 2018



**Above**: Kaw Lake shoreline







### **Project Schedule**

ctivity ID	Activity Name	Orig Dur (WD)	Finish
Phase 2 Kaw Lake	Water Supply Program - Working Schedule	502	22-Apr-19
Environmental (El	NV)	502	22-Apr-19
ENV Specialist Stud	ies	334	22-Aug-18
ENV.1950D	Hazardous Materials memo	47	31-Jan-18
ENV.1950B	Threatened & Endangered Species Report	60	31-Jan-18
ENV.1950A	Wetland and Stream Delineation Report	60	31-Jan-18
ENV.1950D.1	City Review of Hazardous Materials Memo	10	14-Feb-1
ENV.1950B.1	City Review of T&E Report	10	14-Feb-1
ENV.1950A.1	City Review of Wetland and Stream Delineation	10	14-Feb-1
ENV.1950B.2	Revisions of T&E Report	5	21-Feb-1
ENV.1950A.2	Revisions of Wetland & Stream Delineation Report	5	21-Feb-1
ENV.1100B	USACE Review of T&E Report	42	20-Apr-1
ENV.1100A	USACE Review of Wetland & Stream Delineation Report	42	20-Apr-1
ENV.1950C	Cultural Resources Report	60	01-May-1
ENV.1950C.1	City Review of Cultural Resources Report	10	15-May-1
ENV.1100B.1	USFWS Review of T&E Report	20	18-May-1
ENV.1950C.2	Revisions of Cultural Resources Report	5	22-May-1
ENV.1100C	USACE Review of Cultural Resources Report	44	25-Jul-18
ENV.1100C.1	SHPO Review of Cultural Resources Report	20	22-Aug-1
ENV for PIP		211	28-Feb-1
ENV for TSR EM		55	05-Feb-1
ENV Environmental	Assessment	187	28-Jan-1
ENV.1120	Prepare Draft EA-Introduction and Background	10	15-May-1
ENV.1123	Prepare Draft EA - Existing conditions	5	22-May-1
ENV.1121	Prepare Draft EA - Environmental Impacts	22	22-Jun-18
ENV.1122	Prepare Draft EA - Public Involvement summary	22	22-Jun-18
ENV.1124	Prepare Draft EA - Summary and Commitments	10	09-Jul-18
ENV.1125	Produce and Submit Draft EA	5	29-Aug-1
ENV.1110	USACE & Cooperating Agency review of EA	31	12-Oct-18
ENV.1080	Draft FONSI	10	26-Oct-18
ENV.1130	Public Comment Period - FONSI	21	28-Nov-1
ENV.1140	Review & incorporate Public Comments	21	28-Dec-1
ENV.1150	FINAL EA Approval	20	28-Jan-19
ENV Section 408 Ap	proval	60	22-Apr-19
ENV Section 404 Pro	e-Coordination	42	20-Apr-18



