

City of Elk Grove
Addendum to the
Multi-Sport Complex and Southeast Industrial Annexation Area
Supplemental Environmental Impact Report



City of Elk Grove
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1.0 Introduction

This Addendum was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. This document has been prepared to serve as an Addendum to the previously certified Supplemental Environmental Impact Report (SEIR) for the Grant Line Southeast Industrial Area (SEIA). The City of Elk Grove is the lead agency for the environmental review of the SEIA (Project).

1.1 Background and Purpose of the EIR Addendum

The SEIR (SCH #2015102067 and 2021020004) was certified in January 27, 2021 by the Elk Grove City Council. Changes are proposed to the Project relative to storm water facilities, water demands, and consistency with the Williamson Act (Government Code Section 51200 et seq.). Please refer to Section 2.0 (Project Description) for a detailed description of the proposed changes.

In determining whether an Addendum is the appropriate document to analyze the modifications to the project and its approval, CEQA Guidelines Section 15164 (Addendum to an EIR or Negative Declaration) states:

1. *The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*
2. *An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.*
3. *An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.*
4. *The decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.*
5. *A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's required findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.*

1.2 Basis for Decision to Prepare Addendum

When an environmental impact report has been adopted for a project, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15164 set forth the criteria for determining whether a subsequent EIR, subsequent negative declaration, addendum, or no further documentation be prepared in support of further agency action on the project. Under these Guidelines, a subsequent EIR or negative declaration shall be prepared if any of the following criteria are met.

1. *When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*
 - (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*

2.0 Project Description

This section provides a detailed description of the proposed changes to the Project and the purpose of this Addendum. The reader is referred to Section 3.0 (Environmental Analysis) for the analysis of environmental effects of this project in relation to the previous analysis provided in the SEIR.

2.1 Project Location

The Project consists of approximately 571 acres located southeast of Grant Line Road (near its intersection with Waterman Road) and east of the Union Pacific Railroad (UPRR) tracks and State Route (SR) 99. The Project site extends eastward past the intersection of Grant Line Road and Mosher Road and extends southward to the Sacramento County Urban Services Boundary (USB), approximately following the 100-year floodplain (see Exhibit 2-1 of the Draft SEIR). The Project area is made up of five properties (as defined by ownership), which are listed in Table 2-1 and illustrated in Exhibit 2-2 of the Draft SEIR.

2.2 Overview of the Project and the SEIR

SOUTHEAST INDUSTRIAL AREA PROJECT

The SEIA Project involves the annexation of up to 571 acres into the City of Elk Grove from unincorporated Sacramento County and the development of this area with a range of industrial and commercial uses. As described in the SEIR, annexation is planned to occur in phases, with the first phase having occurred in June 2021 and covering approximately 390 acres (referred to as the Phase 1 Annexation). To accomplish this, the Project included amendments to the City General Plan, the adoption of Prezoning, adoption of a Specific Plan, and the establishment of infrastructure master plans addressing public water, sewer, drainage, and transportation. Details are provided in Chapter 2 (Project Description) of the SEIR.

Within the Phase 1 Annexation area a total building area of approximately 6,000,000 square feet is anticipated. Table 1 summarizes the land uses and the attached figure illustrates the location of the land uses.

Table 1: Land Use Plan Summary

Owner	APN	Proposed General Plan	Acres	
			By APN	By Land Use
Cypress Abbey	134-0190-032	Light Industrial	16.42	34.48
	134-0190-029		7.82	
	134-0190-030		10.24	
	134-0190-013	Heavy Industrial	158.24	158.24
Kendrick	134-0190-010	Light Industrial	75.55	75.55
		Regional Commercial	20.00	20.00
City	134-0190-009	Light Industrial	101.61	101.61

Land Use Designation	Total Acres Proposed	
Light Industrial	211.64	369.89
Heavy Industrial	158.25	
Regional Commercial	20.00	20.00
TOTAL	389.89	389.89

PROJECT OBJECTIVES

The objectives of the Project are as follows:

- Provide for development consistent with the General Plan Study Area Organizing Principles and the East Study Area Land Use District Program Standards.
- Create a mix of employment activities in the southwestern portion of the East Study Area that transitions to residential neighborhoods toward the northeast.
- Focus employment uses within the East Study Area on industrial, office, and regional retail uses.
- Designate open space as needed to meet resource conservation standards and to provide an adequate floodplain buffer.
- Facilitate development that would create a better balance between the types of local jobs available and the skills and interests of the local labor force.

PURPOSE OF THE SEIR

The City, as the lead agency, prepared the SEIR to evaluate the environmental impacts of implementing the Project, including but not limited to, adoption of General Plan land use designations and rezoning, approval of annexation (by LAFCo), construction of infrastructure to serve future development, and approval of subsequent development within the Project area. The CEQA Guidelines charge public agencies with the responsibility of avoiding or minimizing environmental damage that could result from implementation of a project, where feasible. As part of this responsibility, public agencies are required to balance various public objectives, including economic, environmental, and social issues.

The SEIR was prepared as a supplement to the 2019 EIR for the Project and considered revisions to the land use plan and additional details relative to planned infrastructure that were not known at the time the EIR was prepared. The SEIR revisited each resource topic from the prior 2019 EIR, including cumulative effects, to determine if the Project, as revised, would result in new or substantially more severe significant effects that were not analyzed in the EIR. The purpose of the EIR was to support consideration of both the Sphere of Influence Amendment (SOIA) by the Sacramento Local Agency Formation Commission (LAFCo), subsequent General Plan amendment and rezoning by the City, and possible annexation of the Project area to the City by LAFCo. The SEIR updated or expanded the material presented in the EIR to evaluate the changes to the Project and the Project context and describes any changes in impacts attributable to the proposed Project. The EIR established mitigation measures to reduce potential impacts, as applicable and feasible, to a less than significant level. The SEIR considered and incorporated these mitigation measures and, to the extent that new information was available, or the Project had been revised, the measures were updated or revised, or augmented with additional measures. All mitigation measures were applicable to the entirety of the Project, including Phases 1 and 2. Appendix H of the Draft SEIR provides a table of the 2019 EIR mitigation measures and illustrates, in track changes, the revisions proposed in the SEIR.

2.3 Proposed Revisions to the Project

This section describes the proposed changes to the Project. No land use changes are proposed.

TRANSPORTATION MASTER PLAN UPDATE

The Project included the preparation and adoption of a Transportation Master Plan that illustrated locations for future roadways within the Project area. Some roadways were intended to be fixed positions,

such as the extension of Waterman Road (labeled as Road B) into the Project. Others were shown more conceptually, allowing for final siting based upon future land use applications.

Since initial adoption of the Transportation Master Plan, the City has met with property owners and prospective developers to further understand the roadway needs. Based upon these conversations, an updated Transportation Master Plan is proposed with the following revisions:

- Elimination of Road D through the Kendrick Property
- Relocation of Road C across the Kendrick Property to align with the primary driveway of the approved Kubota Western Distribution Center Project
- Adjustment in the siting of Road A along the southern property line of the Kendrick Property
- Elimination of various cul-de-sacs on the Cypress Abbey property to provide for a more integrated development opportunity.

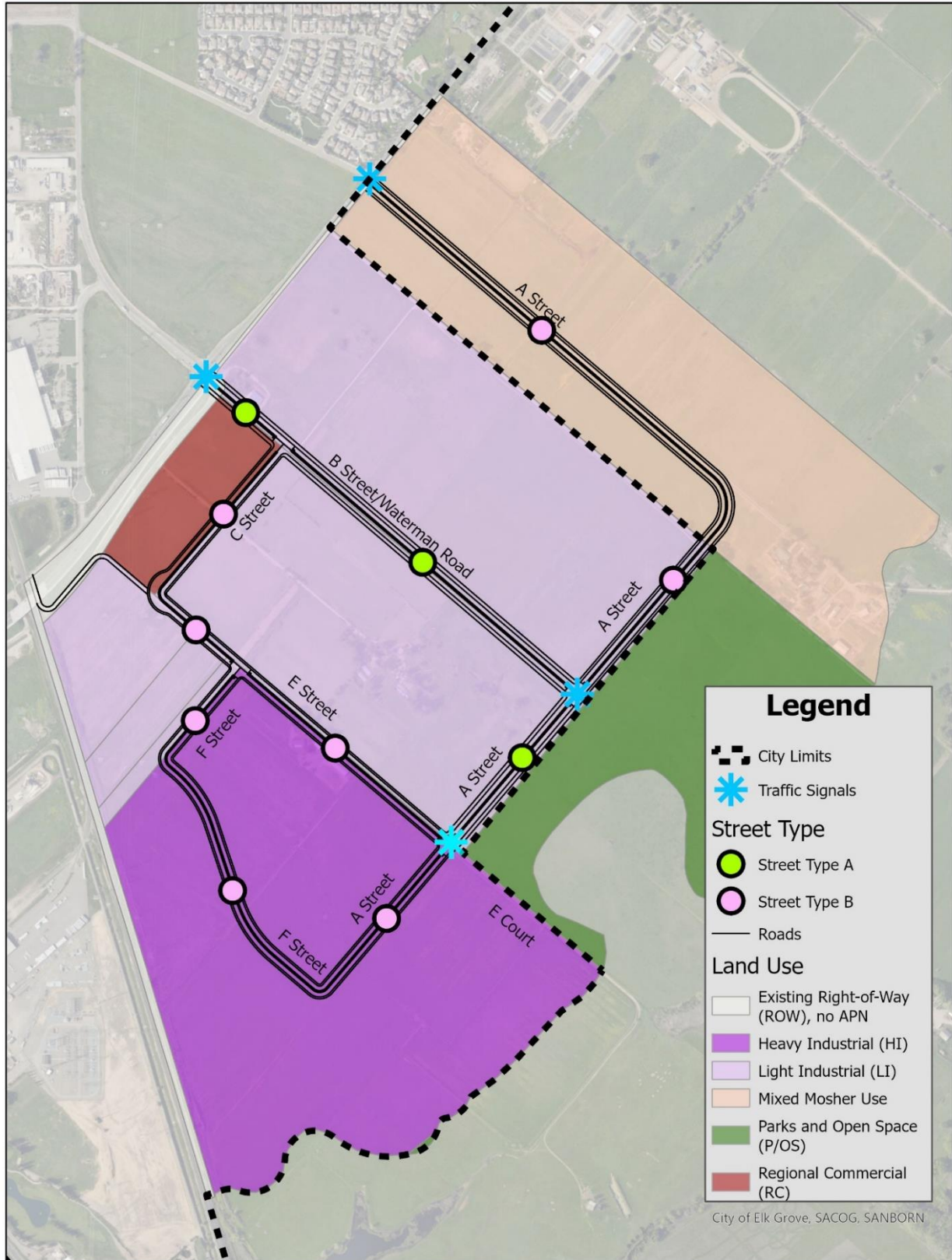
In reviewing these changes, the City has identified potential changes to future traffic operations and, for consistency with General Plan Policy MOB-1-3, the following changes in roadway sizing and signalization will be made:

- Road A from Road B and Road E is changed from a 2-lane facility to a 4-lane facility
- The intersection of Road A and Road E is signalized, rather than stop controlled
- Road C is changed from, in part, a 4-lane facility to an exclusively 2-lane facility

Figure 1 illustrates the proposed roadway facilities. The proposed updated Transportation Master Plan is provided in **Appendix A**.

Continued on next page

Figure 1 – Proposed Transportation Master Plan Update



WATER SUPPLY ASSESSMENT

The Project is served for potable water service by the Sacramento County Water Agency (SCWA) and it is located within the boundaries of their Zone 40 system.

Section 10910-10915 of the State Water Code requires that a Water Supply Assessment (WSA) be prepared for certain qualifying projects, including an “industrial, manufacturing or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than forty acres of land, or having more than 650,000 square feet of floor area.” The Project, at buildout, will meet these qualifications and a water supply assessment is required. Pursuant to the Water Code, upon request of the City SCWA shall prepare a WSA. On May 26, 2021, the City submitted this request to SCWA for the Phase 1 Annexation Area.

As part of the SEIR and approval of the General Plan Amendment and Rezoning, the City prepared a Water Study (or Water Master Plan), which identified the on-site water demands and necessary infrastructure to serve the Project, and an amendment to the Zone 40 Water Supply Master Plan. These studies, along with the Zone 40 Water System Infrastructure Plan and the 2020 Urban Water Management Plan form the basis of the analysis for the Water Supply Assessment.

The WSA was prepared by SCWA staff and presented to approved by the SCWA Board on August 24, 2021. The final WSA is included herein as **Appendix B**. The WSA documents all required information specifically delineated by the Water Code and “demonstrates that SCWA’s water supplies are sufficient to satisfy the water demands of the Phase 1 of the Project while still meeting the current and projected water demands of existing customers in the next 20 years.”

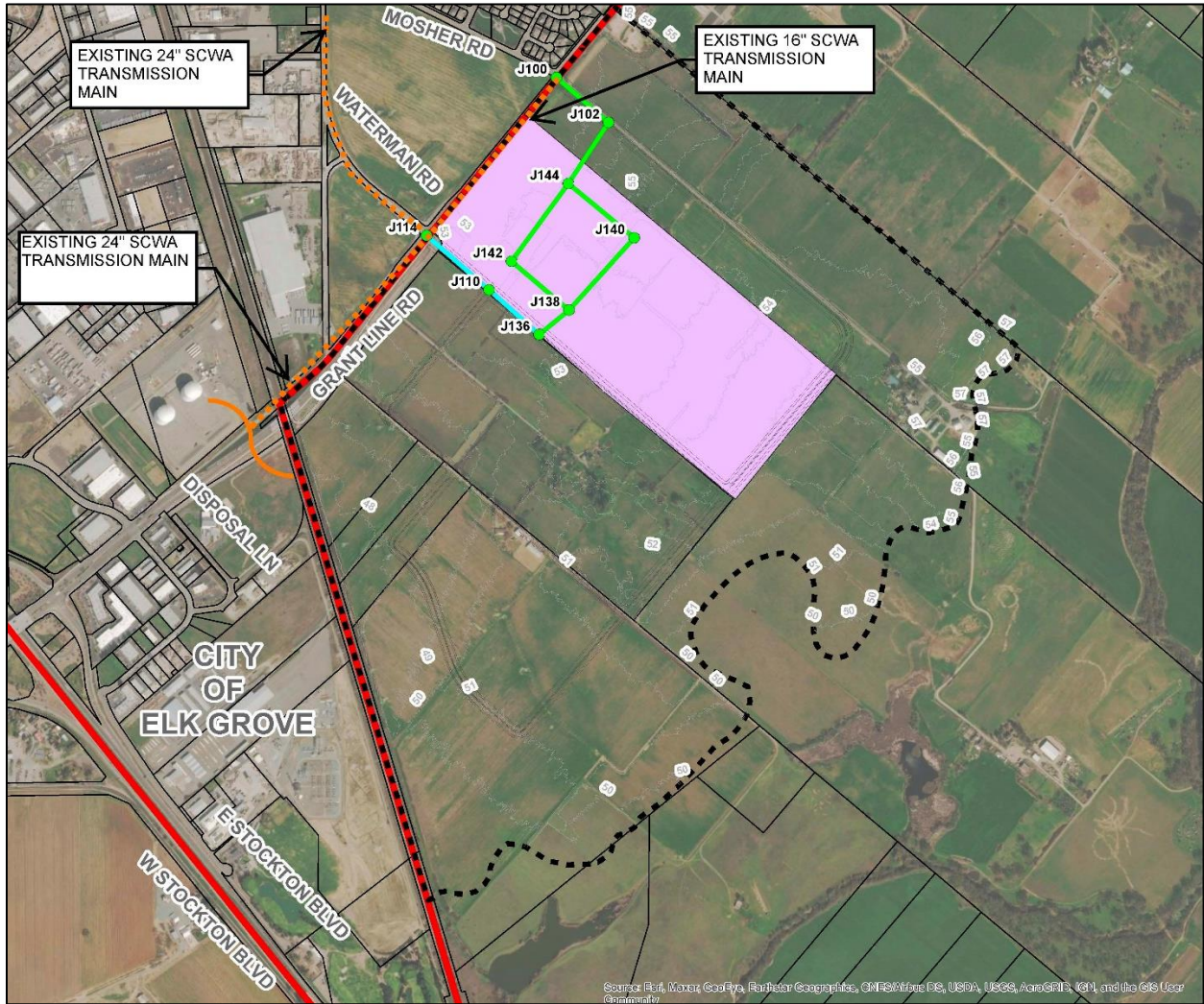
WATER MASTER PLAN AMENDMENT

As mentioned, the City has prepared a Water Master Plan that identifies the on-site infrastructure necessary to serve the Project. This study notes the points of connection with the existing Zone 40 system and routing and sizing of the on-site pipelines. The Water Master Plan considers the buildout conditions of the Project and does not specify a phasing strategy. Since adoption of the Water Master Plan, the City has worked with the property owners for the Phase 1 area to understand the most likely sequencing of development.

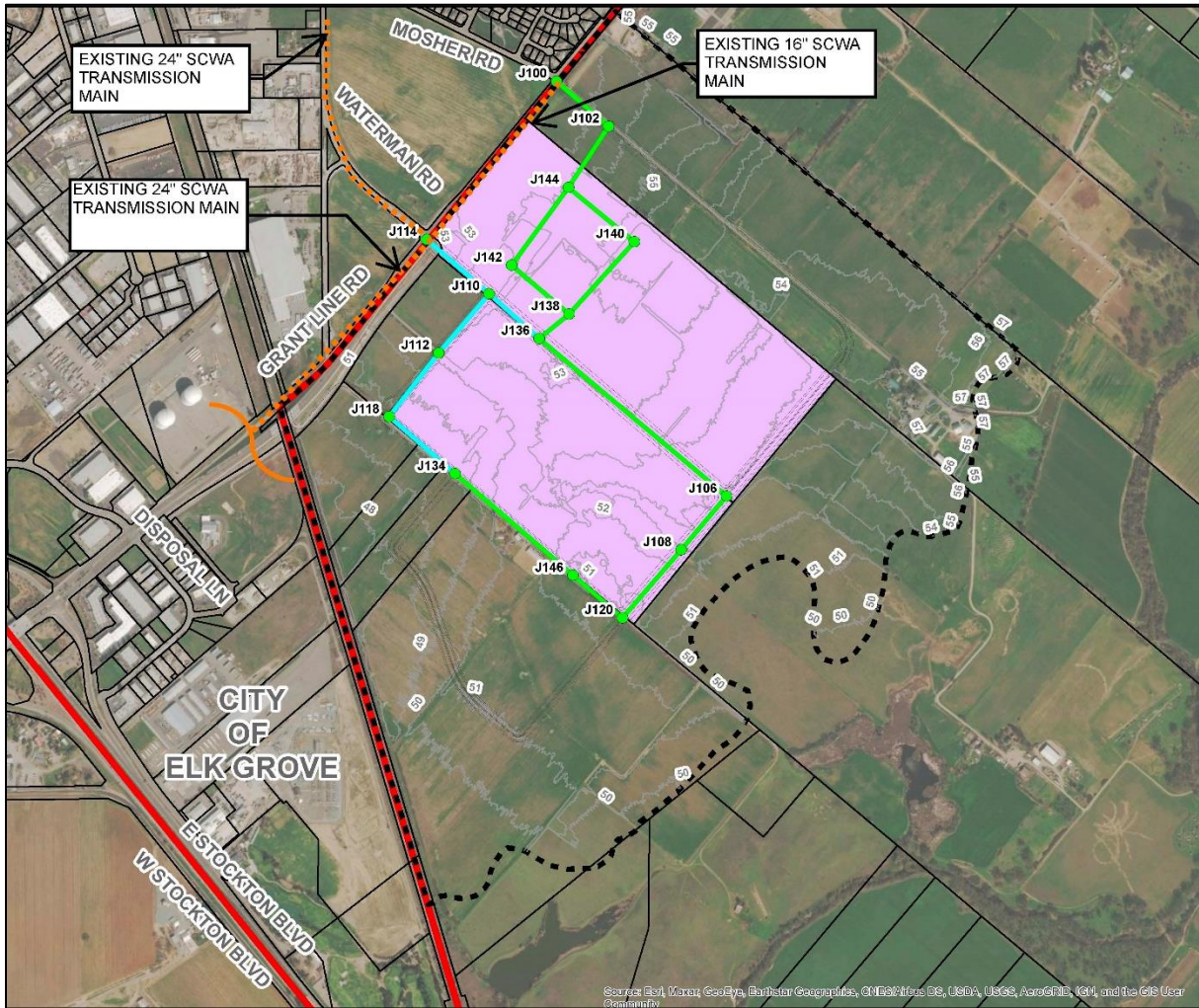
Based upon this information, the City has prepared a Technical Addendum to the Water Master Plan that outlines a strategy for delivery of the on-site water infrastructure in concert with the anticipated development sequencing. This sequencing involves the construction of a 12-inch pipeline from the intersection of Grant Line Road and Mosher Road south along the Grant Line Road frontage to the northern boundary of the City property, then across the City property to the extension of Waterman Road. This additional pipeline provides a second point of connection for development of the City, Kendrick, and Cypress Abbey properties such that minimum fire flows can be achieved. The proposed phasing is illustrated in **Figure 2**.

Figure 2 – Water System and Phasing

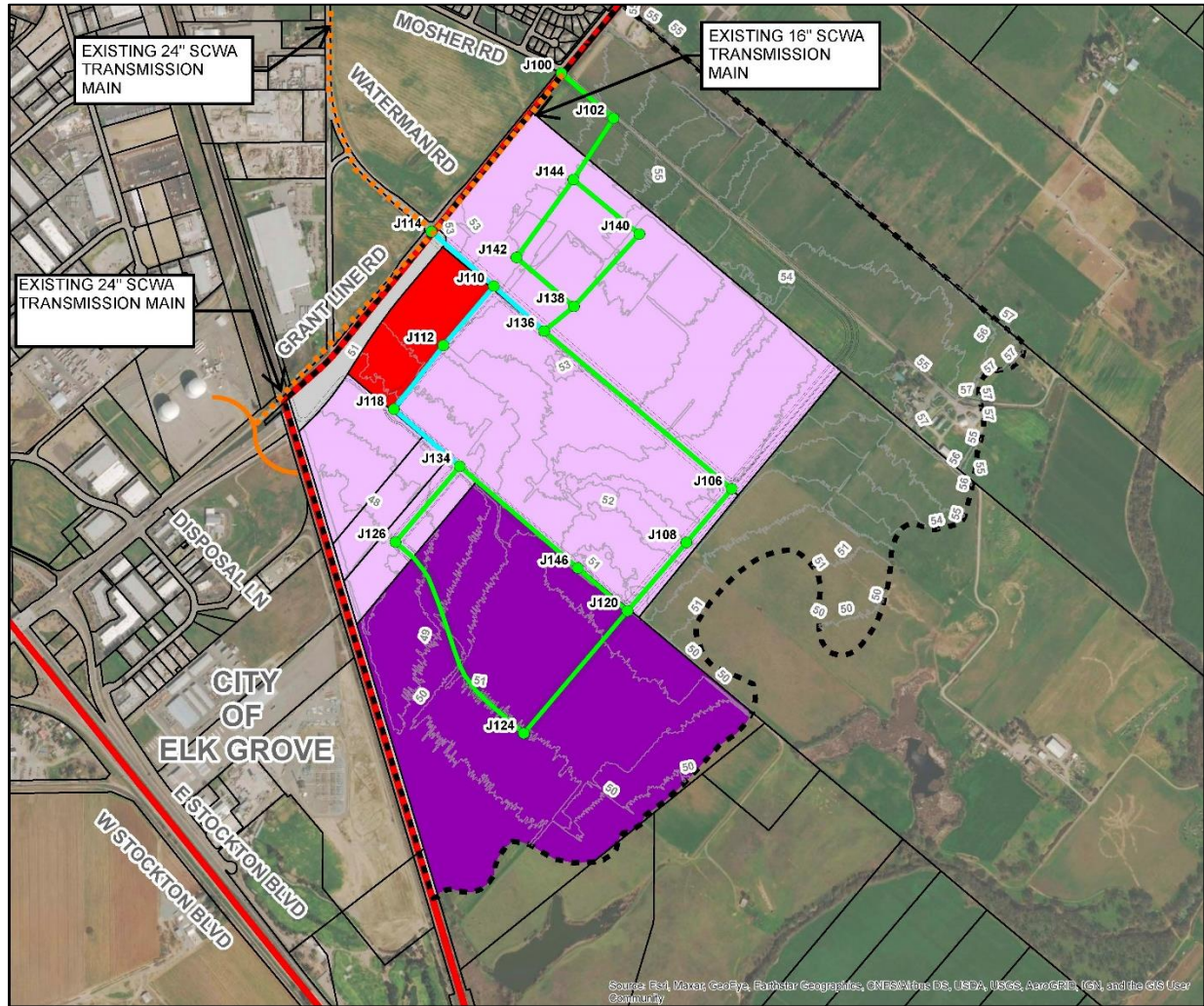
Phase 1A



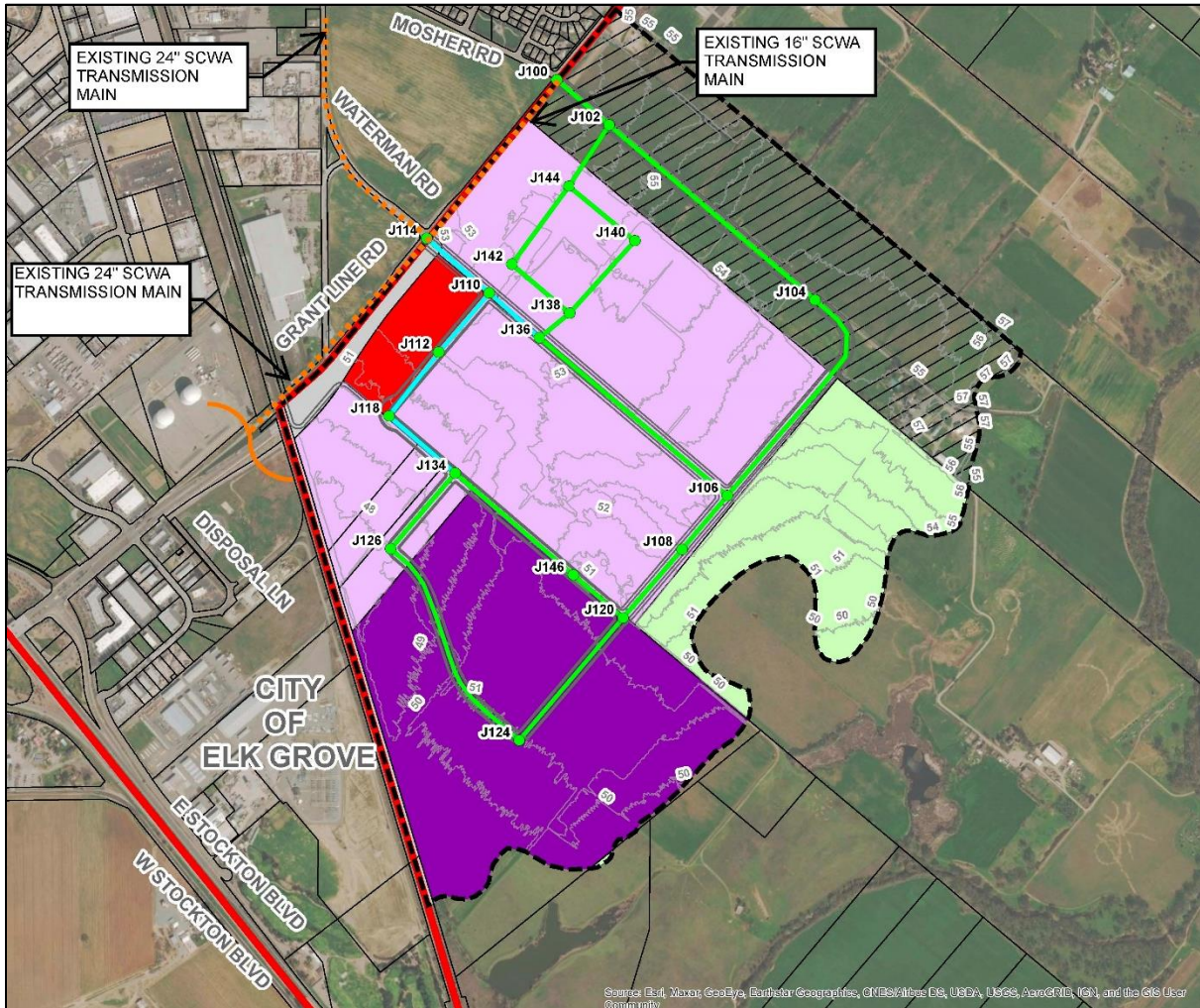
Phase 1B



Phase 2



Phase 3



DRAINAGE MASTER PLAN AMENDMENT

The initial Project approvals included a Drainage Master Plan, which identified a series of detention basins, pipelines, and ditches that would collect stormwater runoff, treat it to the required water quality standards, and then discharge the flows into Deer Creek and the Cosumnes River. Three drainage sheds were established in the Drainage Master Plan (Grant Line, Mahon, and Mosher) based upon the points of discharge. The design employed a concept of independent utility where each of the five properties managed the design and construction of their own basin infrastructure and accessed existing discharge pathways. For example, the City property would be developed with its own detention basin, which collects flows from on-site development, then discharges the flows into a pipeline south to an existing pond on the Mahon property. The pipeline system was selected as the outfall pathway because an upstream project (Triangle Point) was previously approved by the City with this drainage solution. Together, these two projects, along with the Mahon property, made up the Mahon Shed.

As part of discussions with area property owners and development interest, the City identified that adjustments to the Drainage Master Plan would be beneficial in reducing the overall amount of infrastructure required, creating a more efficient system. Under the proposed revisions, approximately 80 acres of the Kendrick property would be shifted from the Grant Line Shed into the Mahon Shed. This revision is beneficial as it takes advantage of the pipeline and avoids the need to send these flows north to the ditch parallel Grant Line Road, then back south along the railroad ditch. Similarly, the southerly

approximately 15 acres of the Triangle Point property would also be shifted from the Grant Line Shed to the Mahon Shed. This change is necessary as the existing design would require flows from this area to pass through the private detention basin at the adjoining International Paper property to the west before flowing to the ditch along the railroad.

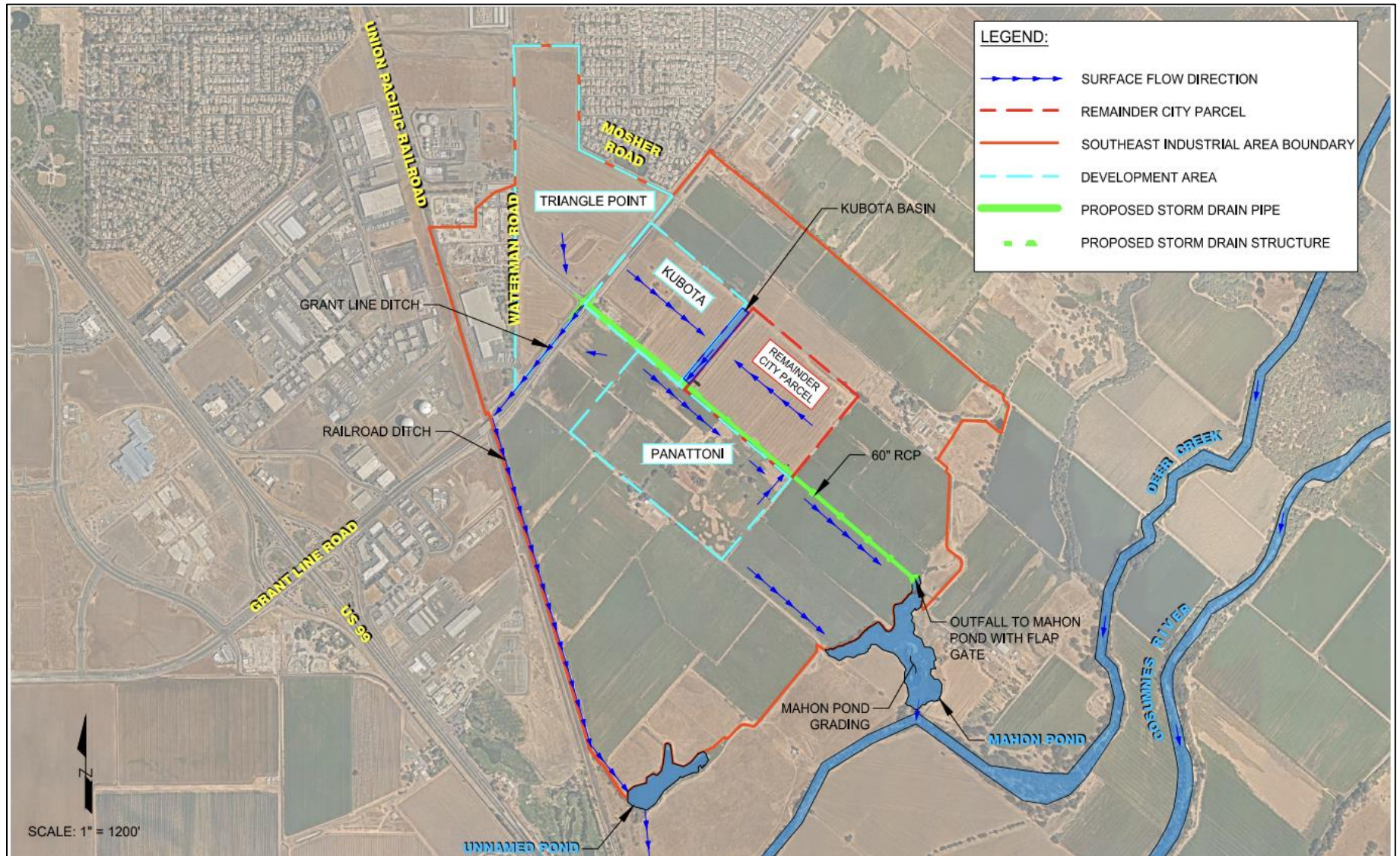
Considering these proposed changes, the City has developed amendments to the Drainage Master Plan for the Mahon Watershed and a schematic design for the ultimate drainage improvements. As illustrated in **Figure 3**, a combination 60-inch and 72-inch reinforced concrete pipe will be constructed along Waterman Road (Road B) to the northern reach of the Mahon Pond. There, an outfall structure consisting of headwalls and a flap gate will be constructed. Minor grading work will also be necessary to connect the outfall with the pond and to ensure positive flow within the pond. No fill will occur with the existing pond. Additional details of the proposed design are provided in **Appendix C**.

In the event that final design and right-of-way acquisition for the ultimate Mahon Shed improvements cannot be completed prior to summer 2022, the City has identified a series of interim improvements that will manage stormwater flows within the Mahon Shed until the outfall improvements are completed. These interim improvements are described in summary below and in detail in **Appendix C**.

1. An interim retention basin will be constructed on the southern portion of the City property. It will be hydrologically intertied with the adjoining permeant basin and will provide capacity for managing the stormwater flows from the shifted Mahon shed.
2. The Triangle Point basin will drain down Waterman Road to the south side of Grant Line Road to a bubble up structure that discharges into a south side ditch (parallel to Grant Line Road running towards the railroad tracks, then south to Deer Creek).
3. As part of the Kubota project, Waterman Road will be constructed along the Kubota frontage including the initial portion of the ultimate storm drain. This section of outfall will be used to drain the Kubota basin back to the bubble up at the south Grant Line Road ditch. The bubble up structure will convey the 100-year 24-hour peak flow to the ditch during the storm events, but due to elevation limitations, will not drain either basin after the storm. The purpose of the interim pump station is to drain both basins to enable the system to accommodate subsequent storms. Due to the constraints of the drainage ditch downstream of the bubble up, it is necessary to drain these basins over a multi-day period following the 100-year, 24-hour storm event.

Continued on next page

Figure 3 – Proposed Ultimate Mahon Shed Drainage Improvements



CONSISTENCY WITH THE WILLIAMSON ACT

The California Land Conservation Act, or Williamson Act (California Government Code Section 51200 et. seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

The SEIR identified that the Kendrick and Cypress Abbey property were, at one point, under Williamson Act contracts, but that non-renewal had been recorded in the 1980s and, as of 2021, the contracts were no longer in effect. When the respective contracts were established, the County of Sacramento (the land use agency at the time) complied with the Williamson Act and first placed the properties into an agricultural preserve. When the contracts were non-renewed, the County did not remove the agricultural preserve. The County resolution of preserve has remained on title since the initial contract period, but no tax benefits or property use restrictions have been applicable to the properties since the non-renewal. As part of the proposed revisions to the Project the City would remove the agricultural preserve from title, thereby completing the actions first started by the County when the contracts were not renewed.

SMUD INFRASTRUCTURE

The Sacramento Municipal Utility District (SMUD) has identified infrastructure necessary to serve the Project area. A new 69kV line would be constructed from the existing 69kV line along Grant Line Road south along the west side of Waterman Road to A Street, then along the north side of A Street to the Cypress Abbey property (E Street). From there, in a future phase, the line would be extended across the Cypress Abbey property back to the existing SMUD facility on the west side of the Union Pacific Railroad tracks (see **Figure 4**). Individual developments within the Project area would take service from this line into project-specific substations if their load is too large to be served from the 12kV system. Consistent with SMUD standards and City policy, this 69kV service would be constructed as an overhead line on steel poles.

All streets within the Project area would also include 12kV service lines. Depending upon the characteristics of the individual users, SMUD may construct an area distribution substation within the Project area to continue reliable electrical service to the Project and surrounding areas. A specific location for the area distribution substation has not been identified but would be located within the Project area. Additional 69kV facilities will need to be extended from the described 69kV line above to the location of the area distribution substation when determined.

SEWER MASTER PLAN AMENDMENT

Sewer service in the Project area is provided by the Sacramento Area Sewer District (SASD) for conveyance and Regional San for treatment. A Level II Sewer Study was prepared for the Project and included in the SEIR. The Level II Study identifies connections to the existing SASD system along Grant Line Road and at a manhole on the Cypress Abbey property adjoining the railroad tracks (the Railroad Manhole). A conceptual alignment for the on-site sewer system was shown in the Level II study following the proposed roadway system.

Because of the change in roadway alignments (as discussed herein) and the timing of development on the Cypress Abbey property, a new alignment for the on-site sewer connection to the Railroad Manhole is proposed. As shown in **Figure 5**, sewer facilities would be constructed along A Street and E Street north to approximately C Street, then extended southwest along the SMUD Transmission Line corridor to the railroad tracks, then southerly to the manhole. The proposed alignment meets the standards of SASD for facility design and will provide adequate sewer service for the Project's proposed land uses.

Figure 4 – Proposed SMUD Improvements

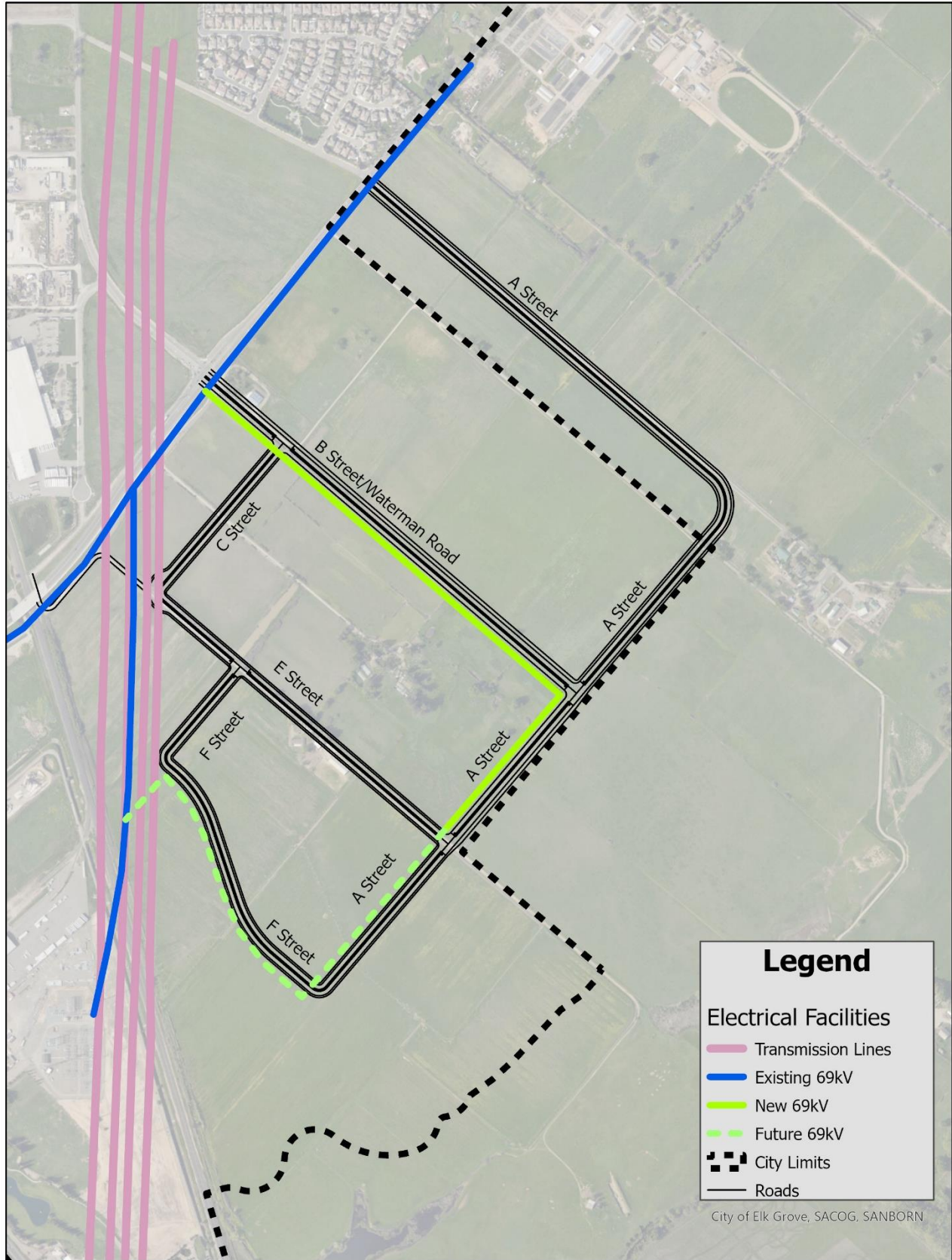
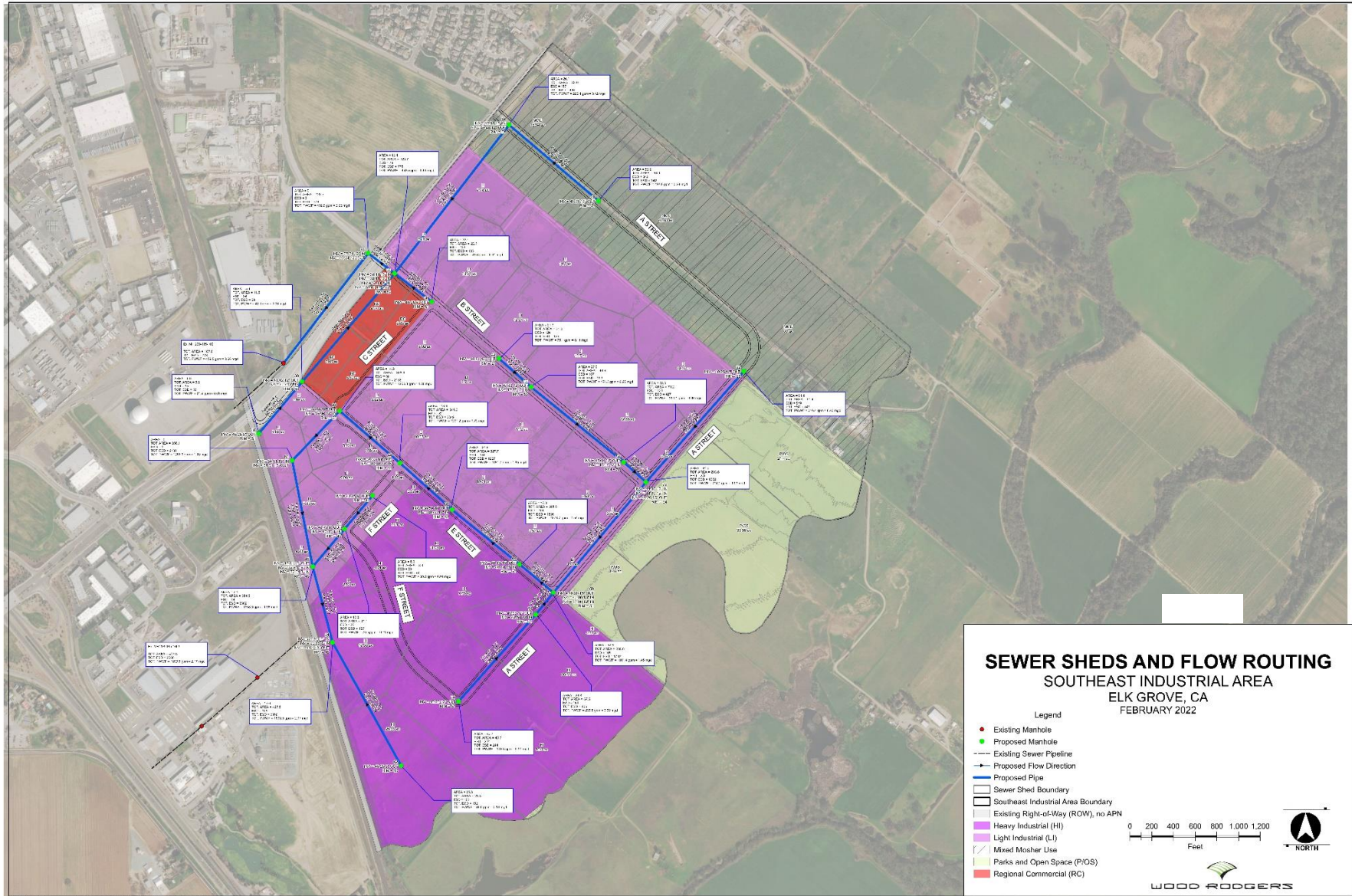


Figure 5 – Proposed Sewer Facilities



2.4 Purpose of Addendum

This Addendum addresses these proposed amendments to the Project in relation to the previous environmental review under the SEIR. CEQA Guidelines Section 15164 defines an Addendum as:

The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurredA brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

The analysis provided in this Addendum (see Section 3.0 for the technical analysis) provides the substantial evidence to support that none of the following circumstances set forth in CEQA Guidelines Section 15162 would result from adoption of the proposed Project revisions:

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*
- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:*
 - (A) *The project will have one or more significant effects not discussed in the previous EIR or negative declaration;*
 - (B) *Significant effects previously examined will be substantially more severe than shown in the previous EIR;*
 - (C) *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or*
 - (D) *Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

Information and technical analyses from the SEIR are utilized throughout this Addendum. Relevant passages from this document (consisting of the Draft SEIR and Final SEIR) are cited and available for review at:

City of Elk Grove
Office of the City Clerk
8401 Laguna Palms Way
Elk Grove, CA 95758

3. Environmental Analysis

3.1 Introduction

This section of the Addendum provides analysis and cites substantial evidence that support's the City's determination that the proposed amendments to the Project do not meet the criteria for preparing a subsequent or supplemental EIR under CEQA Guidelines Section 15162.

First, as addressed in the analysis below, the proposed amendments to the Project are not substantial changes. They would not cause a new significant impact or substantially increase the severity of a previously identified significant impact from the prior SEIR (CEQA Guidelines Section 15162[a][1]) that would require major revisions to the SEIR. All impacts would be nearly equivalent to or less than the impacts previously analyzed in the SEIR.

Second, proposed modifications to the Project are not changes in physical circumstances that would cause a new significant impact or substantially increase the severity of a previously identified significant impact, and there have been no other changes in the circumstances that meet this criterion (CEQA Guidelines Section 15162[a][2]). There have been no changes in the environmental conditions in the City not contemplated and analyzed in the SEIR that would result in new or substantially more severe environmental impacts.

Third, as documented in Section 3.0, there is no new information of substantial importance (which was not known or could not have been known at the time of the Project approval in January 2021) that identifies: a new significant impact (condition "A" under CEQA Guidelines Section 15162[a][3]); a substantial increase in the severity of a previously identified significant impact (condition "B" CEQA Guidelines Section 15162[a][3]); mitigation measures or alternatives previously found infeasible that would now be feasible and would substantially reduce one or more significant effects of the Project; or mitigation measures or alternatives which are considerably different from those analyzed in the SEIR which would substantially reduce one or more significant effects on the environment (conditions "C" and "D" CEQA Guidelines Section 15162[a][3]). The reader is referred to City Council Resolution No. 2021-032 regarding findings on the feasibility of alternatives evaluated in the SEIR. None of the "new information" conditions listed in the CEQA Guidelines Section 15162[a][3] are present here to trigger the need for a subsequent or supplemental EIR.

CEQA Guidelines Section 15164 states that "The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." An addendum is appropriate here because, as explained above, none of the conditions calling for preparation of a subsequent EIR have occurred.

3.2 Aesthetics

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.2-1 Substantial Degradation of Existing Visual Character. (Significant and Unavoidable)
- Impact 3.2-2 Potential Loss of Trees of Local Importance. (Less than Significant)
- Impact 3.2-3 Light and Glare Effects from New Lighting Sources (Less than Significant)

These impacts were identified and discussed on pages 3.2-4 through 8 of the SEIR.

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The SEIR incorporated the Transportation Master Plan previously prepared. It identified a future roadway network that provided access to the subject properties. This condition was considered in the aesthetics analysis of the SEIR. The proposed revisions to the Transportation Master Plan eliminate or realign some roadways in favor of larger development sites and improve intersection alignments. These changes are not a significant change from the Project as analyzed in the SEIR as the resulting condition would result in urban development of a similar character and quality from that previously analyzed. Therefore, no further analysis is required.

Water Supply Assessment

The Water Supply Assessment documents the availability of water from SCWA to service the Project. This component of the proposed Project has no relationship to the potential aesthetic impacts of the Project. Therefore, no further analysis is required.

Water Master Plan Amendment

The SEIR incorporated the Water Master Plan previously prepared. It identified a future network of pipelines to serve future development and how that system would connect with the existing SCWA system. The proposed amendment to the Water Master Plan provides for phasing of this infrastructure, all of which would occur underground. These changes are not a significant change from the Project as analyzed in the SEIR as the resulting condition would result in urban development of a similar character and quality from that previously analyzed. Therefore, no further analysis is required.

Drainage Master Plan Amendment

The SEIR incorporated the Drainage Master Plan previously prepared. It identified a network of detention basins, ditches, and pipelines necessary to convey stormwater flows from the Project area to the existing outfalls into Deer Creek and the Cosumnes River. Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds, a refined schematic design for the ultimate drainage improvements, and potential interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. Therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act, as a completion of the action of Sacramento County is not renewing the prior contracts, and will not result in changes in the aesthetic conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Impacts from the loss of farmland were considered in the SEIR and mitigation measure 3.3-1 adopted (see discussion in the Agricultural Resources section below). Therefore, no further analysis is required.

SMUD Infrastructure

Since preparation of the SEIR, SMUD has identified the need to extend overhead 69kV electrical service into the Project area and the potential construction of an area distribution substation to convert the 69kV service to 12kV service. These facilities were not specifically identified in the prior SEIR; however, these

facilities are of a similar visual character to the urban development considered in the SEIR. Specifically, the SEIR considered the development of the Project area with industrial and commercial uses and noted that this would result in changes from the existing conditions. Further, there is an existing 69kV line along Grant Line Road and the westerly portion of the Project site is transversed by high-voltage electrical transmission lines. The proposed overhead SMUD facilities would be similar or shorter in height to those facilities. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The SEIR incorporated the Level II Sewer Study previously prepared. It identified a future network of pipelines to serve future development and how that system would connect with the existing SASD system. The proposed amendments to the Sewer Master Plan reflect changes in the planned roadway network. The entirety of the on-site sewer system would occur underground. These changes are not a significant change from the Project as analyzed in the SEIR as the revised condition would result in urban development of a similar character and quality from that previously analyzed. Therefore, no further analysis is required.

3.3 Agricultural Resources

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.3-1 Direct and Indirect Loss of Agricultural Land, Including Farmland of Statewide Importance. (Significant and Unavoidable).
- Impact 3.3-2 Potential Conflict with Existing On-site and Off-site Williamson Act Contracts. (Significant and Unavoidable)
- Impact 3.3-3 Conflict with Existing and Off-site Agricultural Operations. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below. Conversion of the site from agricultural and open space uses to urban uses, including industrial and commercial uses, was analyzed in the previous SEIR.

Transportation Master Plan Amendment

The proposed changes to the Transportation Master Plan would not result in differences from the Project as analyzed in the SEIR. While Road A would be increased from a two-lane facility to a four-lane facility (in part) this is paired with a reduction in width for Road C from four lanes (in part) to two-lanes (in full). These changes improve access and circulation within the Project but do not increase the overall roadway capacity. Access to the Project area remains along Grant Line and no changes to the roadway sizing at these points of connection are not proposed. All proposed roadway facilities are within the same development area analyzed in the SEIR. No new conversion of agricultural and open space lands are proposed. Therefore, no further analysis is required.

Water Supply Assessment

The Water Supply Assessment documents the availability of water from SCWA to service the Project. The Assessment demonstrates that there is sufficient water availability to serve the Project. There are no impacts to agricultural resources from the allocation of this water to the Project as this water is already within the water rights of SCWA. Therefore, no further analysis is required.

Water Master Plan Amendment

The proposed amendment to the Water Master Plan provides for phasing of this infrastructure, all of

which would occur underground. These changes are not a significant change from the Project as analyzed in the SEIR and no new facilities not previously identified would be constructed within areas not planned for urban development. Therefore, no further analysis is required.

Drainage Master Plan Amendment

The proposed amendments to the Drainage Master Plan provide greater detail on the planned infrastructure. This includes the discharge of storm water into Deer Creek/Cosumnes River. The Drainage Master Plan amendments do not result in a substantial change in the character of this discharge from what was previously analyzed. Rather, the changes provide for updated engineering design for how the storm water pipelines would be extended/constructed to the Mahon Pond. No modifications to the Mahon Pond are proposed other than the construction of the pipeline outfall. Therefore, there are no new impacts not previously considered in the SEIR. Therefore, no further analysis is required.

Consistency with the Williamson Act

The SEIR and prior EIR identified that two sites within the Project area are currently held in Williamson Act contracts (the Mosher and Mahon properties), and two additional properties (Kendrick and Cypress Abbey) were previously in Williamson Act contracts. Both the SEIR and prior EIR identified the removal of the Mosher and Mahon properties from the Williamson act as a significant and unavoidable impact.

The Williamson Act requires that, prior to the establishment of a contract, a local agency first establish an agricultural preserve. Only properties that are within the preserve may enter into a contract. While a Williamson Act contract provides the most protections for agricultural activities, including limiting the range of allowed uses in a way that is more restrictive than zoning, the application of a preserve also carries certain protections. Land within a preserve is limited in the types of subdivisions and land transactions that may occur. The intent is to limit subdivisions or transactions that would take a site out of agricultural production.

In a review of the title history of the Kendrick and Cypress Abbey properties, it was determined that when the subject contracts were placed into non-renewal and ultimately no longer effective, the underlying agricultural preserve designation under the Williamson Act was not removed.

While the EIR and SEIR did not specifically address the removal of the agricultural preserve on the subject properties, both reviews did consider the cancellation of Williamson Act contracts and the loss of agricultural land as a result of the Project (Impacts 3.3-1 and 3.3-2). To address these impacts, the SEIR identified and the City adopted Mitigation Measure 3.3-1, which provides for the protection of one acre of existing farmland land of equal or higher quality for each acre of Farmland of Statewide Importance that would be developed as a result of the Project. Figure 3.3-1 of the Draft EIR identified that the Kendrick and Cypress Abbey properties were designated as Farmland of Statewide importance, therefore the mitigation measure is applicable to these properties.

Ultimately, the SEIR concluded that the impact from the loss of farmland and removal of properties from the Williamson Act would be a significant and unavoidable impact and that no additional feasible mitigation was available. Because the impacts from the proposed modifications to the Project are similar to that analyzed in the SEIR and prior EIR no further review is required.

SMUD Infrastructure

There are several residential and agricultural structures within and south of the Project area. Existing development within the Project will be demolished to accommodate the planned land uses, including overhead 12kV SMUD services that run across the City, Kendrick, and Cypress Abbey properties. This service continues south beyond the Project area to other residences south and east of the Project. As part of the removal and relocation of the 12kV service within the Project into joint trenches along the streets, SMUD will also relocate the point of connection for these other residences. This will potentially

involve new overhead 12kV services if the relocation cannot be incorporated into the joint trenches along streets. This relocated overhead service will be similar to the existing service, including wood or metal utility poles. The siting of these poles will be coordinated with the property owners to ensure integration into any existing agricultural operation. Therefore, there are no new impacts.

Sewer Master Plan Amendment

The SEIR incorporated the Level II Sewer Study previously prepared. It identified a future network of pipelines to serve future development and how that system would connect with the existing SASD system. The proposed amendments to the Sewer Master Plan reflect changes in the planned roadway network. These changes are not a significant change from the Project as analyzed in the SEIR and no new facilities not previously identified would be constructed within areas not planned for urban development. Therefore, no further analysis is required.

3.4 Air Quality

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.4-1 Generation of temporary, short-term, construction-related emissions of criteria air pollutants and ozone precursors. (Less than Significant)
- Impact 3.4-2 Generation of long-term operational emissions of criteria air pollutants and ozone precursors. (Less than Significant)
- Impact 3.4-3 Exposure of sensitive receptors to substantial pollutant concentrations. (Less than Significant)
- Impact 3.4-4 Result in Other Emissions (such as those leading to odors) Adversely Affecting a Substantial Number of People. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the overall trip characteristics or points of connection with the existing roadway system from that considered in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new air quality impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development.

The interim drainage improvements involve the installation of a temporary pump to evacuate the Triangle Point and City basins. This pump is likely to be a diesel pump that would operate as necessary to evacuate the basins following a storm event. The evacuation period is expected to last for several days, depending upon the intensity and duration of the storm event. The pump will be subject to any required permits by the Sacramento Air Quality Management District and is expected to operate for no more than one wet-weather season until the ultimate improvements are completed, at such time the pump will be decommissioned. It is also possible that the pump will not be required if design and right-of-way acquisition for the ultimate improvements is completed in spring 2022, allowing for construction of the ultimate facilities in summer 2022. Therefore, the impacts from the pump are considered temporary and similar in nature to the temporary emissions associated with construction equipment operating within the Project area. The impacts were considered in the SEIR and no further environmental review is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will involve various equipment and construction practices, including trenching and boring for conduits and excavation of footings for electrical poles, including the proposed 69kV line. These improvements will be substantially similar in character to the construction activities considered in the SEIR. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The SEIR incorporated the Level II Sewer Study previously prepared. It identified a future network of pipelines to serve future development and how that system would connect with the existing SASD system. The proposed amendments to the Sewer Master Plan reflect changes in the planned roadway network. The change do not modify the extent of the improvements or points of connection to the SASD system. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.5 Biological Resources

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.5-1 Loss of Habitat for Special-Status Plant Species. (Less than Significant)
- Impact 3.5-2 Adverse Effects on Valley Elderberry Longhorn Beetle Habitat. (Less than Significant)
- Impact 3.5-3 Loss of Nesting and Foraging Habitat for Special-Status and Other Protected Raptors (Less than Significant, Significant and Unavoidable for Swainson's hawk only)

- Impact 3.5-4 Loss and Disturbance of Nesting Habitat for Special-Status Birds and Common Nesting Birds. (Less than Significant)
- Impact 3.5-5 Potential for Injury to or Mortality of American Badger. (Less than Significant)
- Impact 3.5-6 Potential for Injury to or Mortality of Western Pond Turtle and Giant Garter Snake. (Less than Significant)
- Impact 3.5-7 Potential Loss of Western Red Bat. (Less than Significant)
- Impact 3.5-8 Potential Indirect Effects to Vernal Pool Crustacean Habitat (Less than Significant)
- Impact 3.5-9 Disturbance, Degradation, or Removal of Federally Protected Waters of the United States. (Less than Significant)
- Impact 3.5-10 Interference with Wildlife Nursery Sites or Migratory Corridors. (Less than Significant)
- Impact 3.5-11 Conflicts with Local Policies and Ordinances Protecting Biological Resources. (Less than Significant)
- Impact 3.5-12 Conflicts with the Provisions of an Adopted Habitat Conservation Plan. (Less than Significant)
- Impact 3.5-13 Loss of Riparian Habitat and Sensitive Natural Communities. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Therefore, no further analysis is required. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new biological impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. Therefore, no further analysis is required. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water

system. Therefore, there are no new impacts that were not previously considered as part of the SEIR. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. Therefore, no further analysis is required. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. Therefore, there are no new impacts that were not previously considered as part of the SEIR. Any areas of land developed will be reviewed for habitat mitigation and appropriate biological measures, including but not limited to implementation of the South Sacramento Habitat Conservation Plan, will be implemented.

3.6 Cultural and Tribal Cultural Resources

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

Impact 3.6-1 Substantial Adverse Change in the Significance of Known Historical Resources. (No Impact)

- Impact 3.6-2 Potential to Cause a Substantial Adverse Change in the Significance of an Unknown Historical Resource or Unique Archeological Resource. (Significant and Unavoidable/Less than Significant)
- Impact 3.6-3 Substantial Adverse Change to a Tribal Cultural Resource. (Significant and Unavoidable)
- Impact 3.6-4 Disturbance of Human Remains. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. No new historical or tribal resources have been identified, nor would the changes in the street layout impact any known historical or tribal resources beyond that previously identified in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new cultural impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. The results of the Water Supply Analysis would not impact any new or previously known historical or tribal resources beyond that identified in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. The revised Water Master Plan would continue to follow the alignment of the public street system or be within the on-site improvements of subsequent development projects. Disturbance of these areas and impacts to historical and tribal resources were considered in the SEIR and mitigation measures were adopted. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate potential phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. These improvements and their potential impact to tribal and historical resources were considered in the SEIR and mitigation measures were adopted. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. No impacts to historical or tribal resources will occur from these changes. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SEIR. These improvements will be substantially similar in character to the construction activities considered in the SEIR, which identified the potential impacts to tribal and cultural resources and imposed mitigation measures as appropriate. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. The revised Sewer Master Plan would continue to follow the alignment of the public street system or be within the on-site improvements of subsequent development projects. Disturbance of these areas and impacts to historical and tribal resources were considered in the SEIR and mitigation measures were adopted. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.7 Geology, Soils, Minerals, and Paleontological Resources

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.7-1 Exposure to Strong Seismic Ground Shaking. (Less than Significant)
- Impact 3.7-2 Seismic-Related Ground Failure. (Less than Significant)
- Impact 3.7-3 Unstable Soils. (Less than Significant)
- Impact 3.7-4 Soil Erosion or Loss of Topsoil. (Less than Significant)
- Impact 3.7-5 Expansive Soils. (Less than Significant)
- Impact 3.7-6 Damage to Unknown Paleontological Resources. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Implementation of the City's Improvement Standards and application of standard erosion control measure as provided in the SEIR is

sufficient to address impacts to geology and soils. Therefore, no further analysis is required..

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new geologic impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights and is prepared consistent with the SCWA Urban Water Management Plan. The Urban Water Management Plan accounted for these water demands. No new impacts to geologic, soil, or paleontological resources would occur as no new or additional water supplies are necessary to serve the Project. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. These improvements were considered as part of the SEIR and no significant impacts were identified to geology, erosion, and soils after implementation of the City's Improvement Standards, including the implementation of standard erosion control measures. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The flow of stormwater into these ponds was considered in the SEIR and it was identified that implementation of the City's Improvement Standards and standard erosion control measures is sufficient to address potential impacts to soil and erosion. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The modifications will not result in substantial changes to the outflow conditions compared to what was analyzed in the SEIR and no improvements are required at the outfalls of the ponds to Deer Creek. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. Implementation of the City's Improvement Standards and application of standard erosion control measure as provided in the SEIR is sufficient to address impacts to geology and soils. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. The revised Sewer Master Plan would continue to follow the alignment of the public street system or be within the on-site improvements of subsequent development projects. Portions of the proposed system would be along the existing electrical transmission corridor that transverses the Cypress Abbey property. Construction of this segment of system will be coordinated with SMUD and the other electrical system operators to ensure that the placement does not impact the footings of the transmission towers. This coordination includes the implementation of City, SMUD, and other agency standards for construction and shoring and stabilizing of soils. Therefore, there are no new impacts that were not previously considered as part of the SEIR and no further analysis is required.

3.8 Greenhouse Gas Emissions

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

Impact 3.8-1 Generation of Greenhouse Gas Emissions or Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs. (Significant and Unavoidable)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new greenhouse gas impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. The supply of the site with potable water is included in the SCWA Urban Water Management Plan and no new off-site infrastructure or pumping is necessary to provide service. Therefore, no new greenhouse gas impacts are generated by the Project. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. No new pumping or treatment facilities are necessary to support the Project. The construction impacts from development of the on-site infrastructure was considered in the SEIR and mitigation measures to address the impacts to greenhouse gases were included. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage

subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. In the ultimate condition, all drainage infrastructure will function through a gravity system; only in the interim condition will a temporary pump be necessary to ensure safe drainage of the Project. The operation of the temporary pump is similar in operation and condition to the construction activities analyzed in the SEIR as the pump would consist of a diesel generator operating over the course of several days to affect the evacuation of the detention basin. Mitigation measures were imposed on the Project to reduce the impacts from greenhouse gases; however, the impacts were still determined to be significant and unavoidable, and the City adopted Findings of Fact and Statement of Overriding Considerations. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. No new greenhouse gas impacts are generated by this change. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SEIR. Construction impacts to greenhouse gases were analyzed in the SEIR and mitigation measures were adopted; however, the impacts were still determined to be significant and unavoidable. These improvements will be substantially similar in character to the construction activities considered in the SEIR. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan identifies the on-site facilities necessary to serve the Project. No new off-site facilities, including pump/lift stations are necessary. The construction impacts from development of the on-site infrastructure were considered in the SEIR and mitigation measures to address the impacts to greenhouse gases were included. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.9 Hazards, Hazardous Materials, and Wildfire

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.9-1 Routine Transport, Use, or Disposal of Hazardous Materials. (Less than Significant)
- Impact 3.9-2 Potential Human Health Hazards from Exposure to Existing On-Site Hazardous Materials. (Less than Significant)
- Impact 3.9-3 Upset and Accident Conditions. (Less than Significant)
- Impact 3.9-4 Interfere with Emergency Response or Evacuation Plans (Less than Significant)
- Impact 3.9-5 Risk from Wildfires. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. The changes do not introduce any new transportation routes for hazardous materials or introduce any hazardous roadway design changes as all improvements would be consistent with the City's Improvement Standards. Emergency access to the Project area would be maintained as originally described in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new hazards, hazardous materials, or wildfire impacts. No new treatment facilities would be required to serve the Project. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. The water supply documented in the Assessment demonstrates that there is sufficient water rights to address emergency conditions, including fire flow demands. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. The phasing plan meets both SCWA and Cosumnes Community Service District Fire Department standards for fire flow. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements ensure that developed portions of the Project are outside the 100-year floodplain and that downstream impacts are consistent with the City and Sacramento County drainage standards, limiting impacts to life and property. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. This change would not introduce any new hazards or hazardous conditions. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. All improvements would be consistent with SMUD standards for these types of facilities including minimum spacing from other uses, activities, and services, and minimum vertical clearances for overhead lines. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment does not create any new hazards, hazardous materials, or wildfire impacts. No new treatment or pump/lift facilities would be required to serve the Project. The amendment updates the alignment of the proposed onsite pipelines based upon the proposed changes to the Transportation Master Plan. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.10 Hydrology and Water Quality

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.10-1 Violate Water Quality Standards or Waste Discharge Requirements. (Less than Significant)
- Impact 3.10-2 Substantially Decrease Groundwater Supplies or Interfere with Groundwater Recharge. (Less than Significant)
- Impact 3.10-3 Alteration of Drainage Patterns Resulting in Substantially Increased Erosion, Siltation, Downstream Flooding, or Increased Stormwater Runoff Volumes. (Less than Significant)
- Impact 3.10-4 Impede Flood Flows or Risk Release of Pollutants from Inundation in a Flood Hazard Zone. (Less than Significant)
- Impact 3.10-5 Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Water quality impacts from roadway construction are addressed in the adopted Mitigation Measures from the SEIR. Stormwater runoff from roadways would be directed into water quality basins before being discharged into Deer Creek. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new hydrology or water quality impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. The Project area would be served from existing water rights and treatment facilities. Supply of the Project area with potable water from SCWA would not impact water quality or hydrological conditions beyond that described in the Urban Water Management Plan or considered in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. Construction of the potable water system would be consistent with the SCWA Construction Standards and would be in conformance with adopted Project mitigation Measures for construction stormwater runoff. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. Basins constructed within the Project area will serve as water quality features and will control for hydromodification, minimizing downstream impacts to water quality. The proposed drainage infrastructure would maintain stormwater discharge of the Project area to Deer Creek, consistent with current practices, and would not increase the risk of downstream flooding. Stormwater volumes would be consistent with those provide in the Sacramento County Stormwater Manual. No existing structures would be inundated in 100-year storm events. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. The improvements proposed by the Project would include the construction of stormwater quality basins and would discharge stormwater to Deer Creek and surrounding agricultural properties to the south. The conversion of the Project from historical agricultural operations to urban (industrial) uses was considered in the design of the stormwater system and design features are included to manage the runoff consistent with the Sacramento County Stormwater Manual. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. All SMUD facilities would be outside the 100-year flood plain and would be designed to SMUD standards to resist storm events to the extent feasible. Runoff from the distribution substation would be directed into a water quality basin within the Project area before discharging to Deer Creek. These improvements will be substantially similar in character to the

construction activities considered in the SEIR. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. All facilities would be outside of the 100-year floodplain and constructed pursuant to SASD design standards for adequate freeboard and stormwater inundation. The impacts from development of the on-site infrastructure were considered in the SEIR. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.11 Land Use, Population, Housing, Employment, Environmental Justice, and Unincorporated Disadvantaged Communities

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.11-1 Consistency with Adopted Sacramento County and Elk Grove General Plan Policies and Land Use Designations. (Less than Significant)
- Impact 3.11-2 Consistency with LAFCo Policies, Standards, and Procedures. (Less than Significant)
- Impact 3.11-3 Induce Substantial Unplanned Population Growth, (Less than Significant)
- Impact 3.11-4 Conversion of Open Space (Significant and Unavoidable)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new impacts to land use, population, housing, employment, environmental justice, or unincorporated disadvantaged communities. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. No changes to the land uses considered in the SEIR are proposed. The level of growth is consistent with that forecasted in the SEIR. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. The level of electrical infrastructure proposed by SMUD is consistent with other major industrial areas found throughout the City and their service territory. Some projects, due to their on-site electrical load, require direct 69kV service, rather than the lower 12kV service. However, 12kV service is still required for roadway lighting and signals and less intensive industrial and commercial development. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. No changes to the land uses considered in the SEIR are proposed. The level of growth is consistent with that forecasted in the SEIR. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.12 Noise and Vibration

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- | | |
|---------------|--|
| Impact 3.12-1 | Temporary, Short-Term Exposure of Sensitive Receptors to Construction Noise. (Significant and Unavoidable) |
| Impact 3.12-2 | Temporary, Short-Term Exposure of Sensitive Receptors to Increased Traffic Noise Levels from Project Construction. (Less than Significant) |
| Impact 3.12-3 | Temporary, Short-Term Exposure of Sensitive Receptors to Potential Groundborne Noise and Vibration from Project Construction (Significant and Unavoidable) |
| Impact 3.12-4 | Long-Term Traffic Noise Levels at Existing Noise-Sensitive Receivers. (Significant and Unavoidable) |
| Impact 3.12-5 | Land Use Compatibility of On-Site Sensitive Receptors with Future Transportation Noise Levels. (Significant and Unavoidable) |

Impact 3.12-6 Land Use Compatibility of On-Site Sensitive Receptors with or Generation of Non-Transportation Noise Levels in Excess of Local Standards. (Significant and Unavoidable)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The proposed changes would not introduce any new short- or long-term noise or vibration impacts compared to that considered in the SEIR because the points of connection to Grant Line Road and surrounding land use context are the same. Mitigation measures were adopted as part of the SEIR to address these impacts and these measures will continue to be enforced on the Project. However, the SEIR ultimately determined that not all impacts could be reduced to less than significant levels, the impacts were determined to be significant and unavoidable, and findings of fact and a statement of overriding consideration was adopted. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new noise or vibration impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. Noise and vibration impacts from construction of the on-site infrastructure and other development were considered in the SEIR and mitigation measures were adopted. However, the SEIR ultimately determined that not all impacts could be reduced to less than significant levels, the impacts were determined to be significant and unavoidable, and findings of fact and a statement of overriding consideration was adopted. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. Noise and vibration impacts from construction of the on-site infrastructure and other development were considered in the SEIR and mitigation measures were adopted. However, the SEIR ultimately determined that not all impacts could be reduced to less than significant levels, the impacts were determined to be significant and unavoidable, and findings of fact and a statement of overriding consideration was adopted. The improvements are substantially similar to

those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. The broader conversion of the Project area from agricultural to urban uses, and accompanying impacts from noise and vibration activities, was considered in the SEIR. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. Construction of these facilities is subject to the adopted mitigation measures from the SEIR for noise and vibration. The SEIR ultimately determined that not all impacts could be reduced to less than significant levels, the impacts were determined to be significant and unavoidable, and findings of fact and a statement of overriding consideration was adopted. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. Noise and vibration impacts from construction of the on-site infrastructure and other development were considered in the SEIR and mitigation measures were adopted. However, the SEIR ultimately determined that not all impacts could be reduced to less than significant levels, the impacts were determined to be significant and unavoidable, and findings of fact and a statement of overriding consideration was adopted. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.13 Public Services and Recreation

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.13-1 Increased Demand for Fire Protection and Emergency Medical Services. (Less than Significant)
- Impact 3.13-2 Increased Demand for Law Enforcement Services. (Less than Significant)
- Impact 3.13-3 Increased Demand for Schools. (Less than Significant)
- Impact 3.13-4 Increased Demand for Parks and Recreation Facilities. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below. As the Project primarily consists of industrial and commercial development there are no impacts to schools, parks, and recreation facilities. No land uses are proposed; therefore, there are no new impacts to these services beyond those considered in the SEIR.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in

the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. The roadway design maintains adequate fire and emergency access through and across the site, both ultimately and in a phased basis. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new public services or recreation impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. No new water rights or off-site infrastructure is necessary to serve the Project. The water supply documented in the Assessment demonstrates that there is sufficient water rights to address emergency conditions, including fire flow demands. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. No new off-site infrastructure is necessary to serve the Project. The phased and ultimate potable water system design maintains adequate flows for fire and emergency services. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements will continue to maintain that development is outside the 100-year floodplain and that emergency access to the Project is provided consistent with City standards. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. The addition of 69kV service into the Project area is not inconsistent with other portions of the City and there are emergency resources available to attend to damaged service lines or equipment. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. No new off-site infrastructure is necessary to serve the Project. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.14 Transportation

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.14-1 Conflict with an applicable transportation plan, ordinance, policy, or congestion management program. (Less than Significant)
- Impact 3.14-2 Conflict or inconsistency with CEQA Guidelines section 15064.3, subdivision (b). (Less than Significant)
- Impact 3.14-3 Hazards due to a design feature. (Less than Significant)
- Impact 3.14-4 Inadequate emergency access. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. The revisions do not increase travel distances or result in increases in Vehicle Miles Traveled as the changes are to internal streets and do not create circuitous routes. All streets provide both bicycle and pedestrian facilities, allowing for alternative travel modes. The proposed revisions have been reviewed by the City Traffic Engineer and are consistent with the City's Improvements Standards. Emergency access to the Project area is maintained. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any transportation impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage

subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SEIR. These improvements will be substantially similar in character to the construction activities considered in the SEIR. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.15 Utilities and Service Systems

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.15-1 Require or Result in the Relocation of or the Construction of New or Expanded Utilities and Service Systems Facilities, the Construction of Which Could Cause Significant Environmental Effects. (Less than Significant)
- Impact 3.15-2 Increased Demand for Water Supplies (Less than Significant)
- Impact 3.15-3 Increased Demand for Wastewater Treatment Facilities. (Less than Significant)
- Impact 3.15-4 Increased Generation of Solid Waste and Compliance with Solid Waste Statutes and Regulations. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below. As there are no changes to the land uses planned for the Project there are no new impacts to solid waste generated by the Project.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify

the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new utility or service system impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. No new water rights or off-site infrastructure is necessary to serve the Project. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. No new off-site infrastructure is necessary to serve the Project. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of the 12kV services lines was assumed as part of the SEIR in parallel with the roadway improvements. Since approval of the SEIR, SMUD has identified the need for the 69kV overhead service and the new area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR, including structure height, aesthetics, and overall industrial character. No off-site improvements are necessary to serve the Project and no new energy sources are required. Addition of the 69kV line will allow for future development in keeping with the industrial nature of the Project with uses that have higher energy needs than can be satisfied by the 12kV system alone. The looped nature of the 69kV line and the construction of the area distribution substation will provide redundancy in the service. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. No new off-site infrastructure is necessary to serve the Project. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

3.16 Energy

PREVIOUSLY IDENTIFIED IMPACTS IN THE SEIR

- Impact 3.16-1 Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. (Significant and Unavoidable)
- Impact 3.16-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Less than Significant)

PROPOSED REVISIONS TO THE PROJECT

The proposed revisions to the Project would not result in differences from the Project as analyzed in the SEIR, as discussed below.

Transportation Master Plan Amendment

The amendments to the Transportation Master Plan are substantially similar to the version considered in the SEIR. One street (D Street) has been eliminated and the roadway sizing for two others (A and C Streets) has been modified. These changes reflect the planned land uses for the area and do not modify the points of connection with the existing roadway system from that considered in the SEIR. The overall footprint of development is the same as that considered in the SEIR. Therefore, no further analysis is required.

Water Supply Assessment

The addition of the Water Supply Assessment does not create any new energy impacts. The Water Supply Assessment documents the availability of water within the SCWA system and water rights. These issues were considered as part of the Water Supply Master Plan included in the SEIR. Therefore, no further analysis is required.

Water Master Plan Amendment

The Water Master Plan amendment provides for the phasing of infrastructure and ensures a looped system is available for fire protection as part of the Project during the initial phases of construction. It does not modify the extent of the improvements or points of connection to the existing potable water system. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Drainage Master Plan Amendment

Amendments to the Drainage Master Plan are proposed to incorporate a shifting of the drainage subsheds and incorporate phased, interim drainage improvements. The revisions will not be substantively different from the conditions analyzed in the SEIR because it will still involve the construction of basins and pipelines in the Project area. Further, it will continue to involve the outfall of drainage south of the Project area into existing ponds that flow to Deer Creek. The existing Drainage Master Plan identified that modifications to the pond(s) may be necessary to ensure positive drainage flow and minimize impacts to existing development. The improvements are substantially similar to those considered in the SEIR and, therefore, no further analysis is required.

Consistency with the Williamson Act

The removal of the Agricultural Preserves from the subject properties will provide for consistency with the Williamson Act and will not result in changes in the Project conditions beyond that analyzed in the SEIR as the conversion to urban uses was previously considered. Therefore, no further analysis is required.

SMUD Infrastructure

The Project includes improvements to the SMUD system to support the development of the Project, including new 12kV and overhead 69kV service and an area distribution substation. Construction of these facilities will be within the boundaries of the Project, which was considered for site disturbance and conversion to urban conditions in the SIER. These improvements will be substantially similar in character to the construction activities considered in the SEIR. No off-site improvements are necessary to serve the Project and no new energy sources are required. The proposed infrastructure provides multiple points of connection to the exiting SMUD system for redundancy and is routed through the project to efficiently provide high-capacity service to all properties. Therefore, no further analysis is required.

Sewer Master Plan Amendment

The Sewer Master Plan amendment provides for an updated alignment of facilities based upon the proposed changes to the roadway system. It does not modify the extent of the improvements or points of connection to the existing SASD system. All facilities would be designed to leverage gravity flows and would not require new pump/lift facilities. Therefore, there are no new impacts that were not previously considered as part of the SEIR.

Appendix A: Transportation Master Plan

City of Elk Grove

Southeast Industrial Area

Transportation Master Plan

Planning Commission Draft
1-20-2022

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Appendices *(Under Separate Cover)*

A: *Transportation Impact Study for the Elk Grove Sphere of Influence Amendment and Multi-Sport Complex* (March 2017)

B: Fehr and Peers Memorandum titled *Elk Grove Multi-Sports Complex VMT Analysis and Transportation Management Plan Review* dated June 30, 2020

C: Kimley-Horn Memorandum titled *Traffic Assessment NSIXD – Elk Grove, CA* dated July 21, 2021

1. Executive Summary

1.1 Purpose

The purpose of this Transportation Master Plan is to identify onsite circulation elements including onsite roadway alignments, identification of onsite typical sections, and outline the proposed intersection improvements for the Southeast Industrial Area. This report is part of an overall high-level infrastructure analysis for the plan area.

This onsite Transportation Plan is based on the Transportation Impact Study prepared by Fehr & Peers, dated March 2017, which was included in the Environmental Impact Report for the Multi-Sport Park Complex project and the Fehr and Peers Memorandum titled *Elk Grove Multi-Sports Complex VMT Analysis and Transportation Management Plan Review* dated June 30, 2020. The Memorandum, found in Appendix B, compares the land use scenarios analyzed in the original Transportation Impact Study with the City's final land use plan included in this Transportation Master Plan. This Plan has been updated based upon the findings of the Kimley-Horn report *Traffic Assessment NSIXD – Elk Grove, CA* dated July 21, 2021, and provided in Appendix C, which considered minor revisions to the roadway alignments and intersections.

1.2 Project Characteristics

The plan area encompasses approximately 571-acres and includes a varied mix of land uses from light and heavy industrial to commercial and open space. In addition, this plan area fronts onto Grant Line Road, part of the Capital Southeast Connector Project. The two fronting intersections at Waterman Road / Grant Line Road and Mosher Road / Grant Line Road have been analyzed in the Transportation Impact Study. The Waterman Road and Grant Line Road intersection is planned to be the primary access to the plan area while the Mosher Road / Grant Line Road intersection will serve as the secondary point of access.

The proposed land uses in the plan area is expected to bring a wide range of vehicle types including passenger vehicles tractor trailers. Some employees may also travel as pedestrians and cyclists from the neighborhoods to the north of the plan area.

1.3 Findings

The onsite circulation plan incorporates the recommendations of the Transportation Impact Study and the Fehr and Peers Memorandum. Figure 3-3 shows the proposed onsite circulation layout.

2. Introduction

The City of Elk Grove (City) is pursuing the development of an industrial park along the south side of Grant Line Road at the intersection with Waterman Road. In June 2021, an approximately 382-acre portion of the area was annexed into the City; the balance of the 571-acre Plan Area may be annexed in a later phase. One of the Local Agency Formation Commission (LAFCo) conditions to annex the area is the preparation of this Transportation Master Plan.

2.1 Background Study

In 2014 the City acquired a 100-acre parcel south of Grant Line Road near the intersection of Waterman Road. In 2015 the City began the process to annex the property into the City and prepared supporting studies and environmental documents required by LAFCo. Included in the environmental analysis is a detailed Transportation Impact Study that analyzed both onsite and offsite traffic related impacts caused by the proposed development. In 2020, due to revisions to the preferred land use within the Plan Area the City commissioned a Technical Memorandum to analyze any potential impacts these changes may have. See Appendix B for the Memorandum.

This Transportation Master Plan utilizes background information from the Transportation Impact Study and the Technical Memoranda to inform the onsite circulation needs at build out of the plan area.

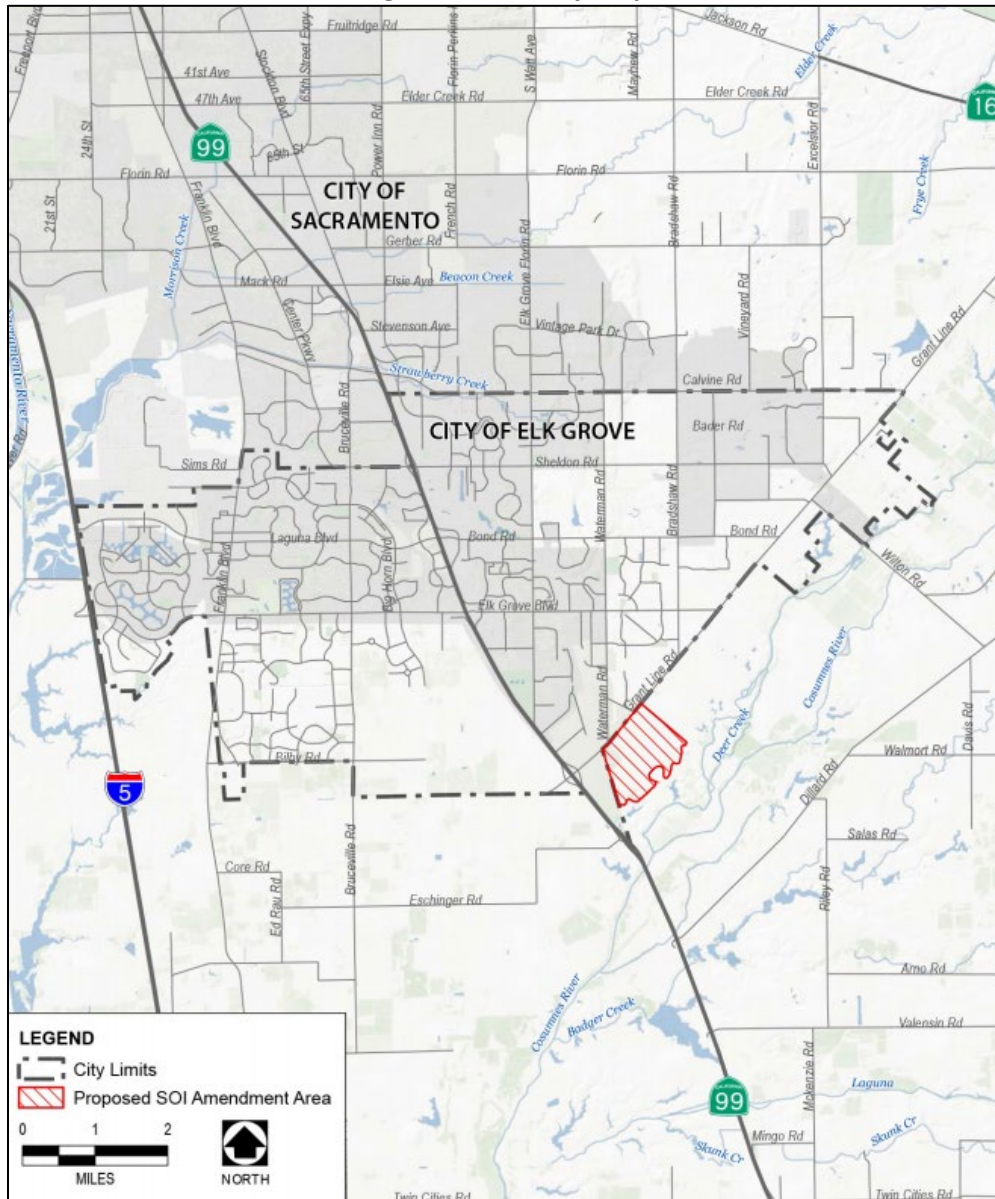
2.2 Location

The Project is located along the south side of Grant Line Road just east of the Union Pacific Railroad tracks (Fresno Subdivision), immediately adjacent to the existing City limits (Figure 2-1). The Project encompasses approximately 571-acres and is located within the City's General Plan East Study Area, meaning that it is planned by the City for future annexation.

2.3 Topography

The site has historically been used for agriculture. The topography varies from 55 feet to 49 feet and falls east to west.

Figure 2 1: Vicinity Map



2.4 Land Use and Zoning

The Land Use Plan (Figure 2-2) illustrates the planned distribution of land uses within the Plan Area. Table 2-1 provides a summary of these land uses. The focus of the Project is on the development of an industrial business park with opportunity for conditional development of a multi-sports park complex.

Figure 2-2: Land Use Plan

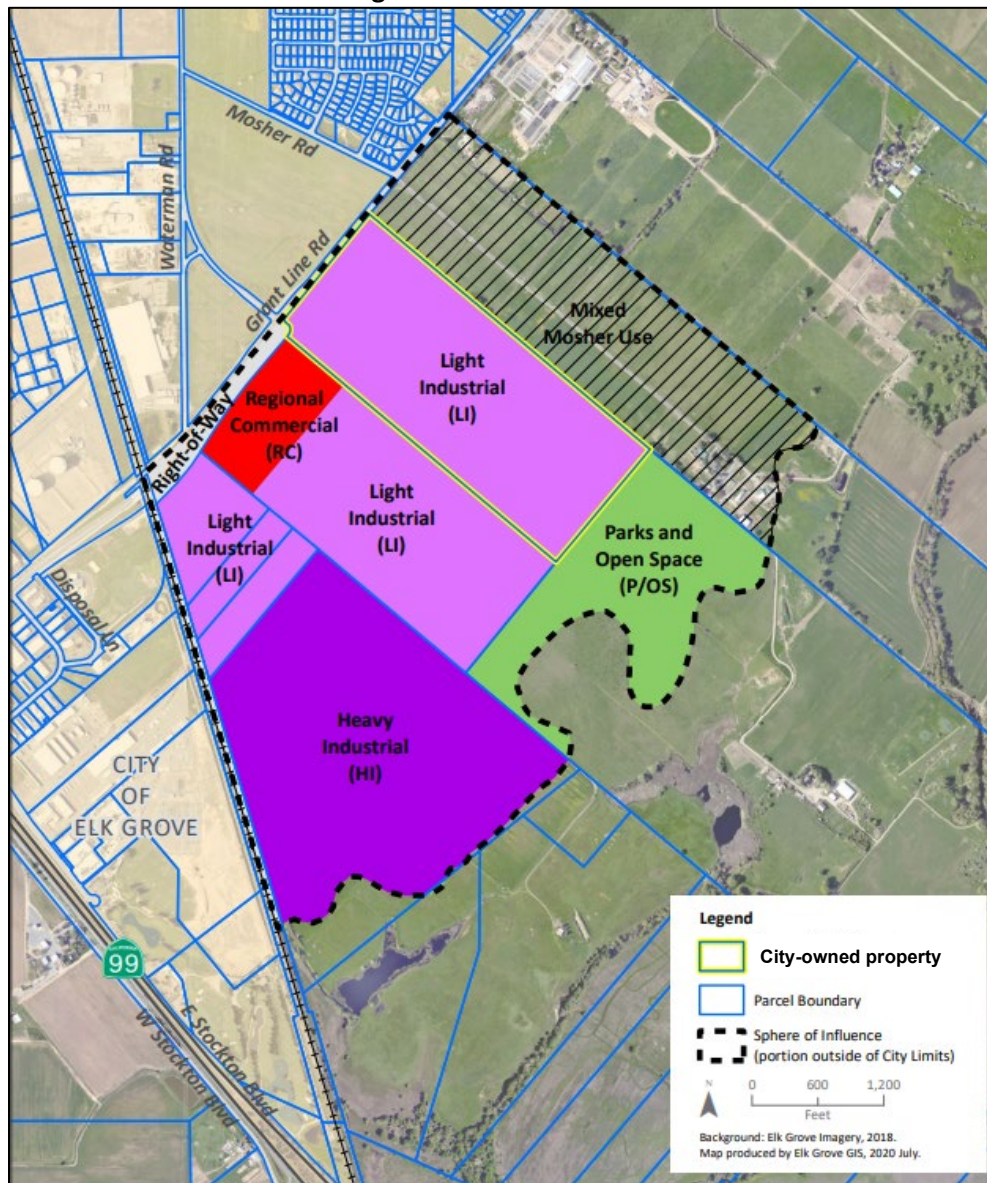


Table 2-1: Land Uses in the Project Area

Land Use/Zoning	Acres
Parks and Open Space (P/OS)	64
Mixed Use (MU)	118
Light Industrial (LI)	212
Heavy Industrial (HI)	158
Regional Commercial (RC)	20
Total	571±

3. Onsite Circulation

Onsite circulation generally follows Figure 17 from the Transportation Impact Study. The onsite roadway segments are laid out to provide necessary access to individual underlying property owners as well as discrete land uses. The onsite circulation utilizes two main intersections to access the plan area. The first is Waterman Road and Grant Line Road and the second access point is Mosher Road and Grant Line Road. Non-vehicular circulation includes class 2 bikeway facilities throughout the plan area and a proposed trail connection to the northwest that will utilize the existing Grant Line Road overcrossing at the Railroad tracks to allow for pedestrian and bike connections to pass below Grant Line Road and connect to Waterman Court.

3.1 Typical Sections

The Transportation Impact Study and Technical Memorandum indicates that there are a few onsite segments that warrant an Arterial class facility based on projected buildout traffic volumes. See Figure 3-1 for Typical Arterial Section. The average daily volume that an arterial section can accommodate is 36,000 vehicles per day. This section is planned for roadway segments 5, 6 and 7. The balance of the plan area will be served by a Typical Commercial Collector Section – See Figure 3-2. A commercial collector can accommodate 18,000 vehicles per day. This section includes a two-way left turn lane throughout to better facilitate future driveway locations. Both the sections include Class II Bikeway facilities and separated and attached sidewalks for non-vehicular circulation.

Figure 3-1 Typical Arterial Section (Street Type A)

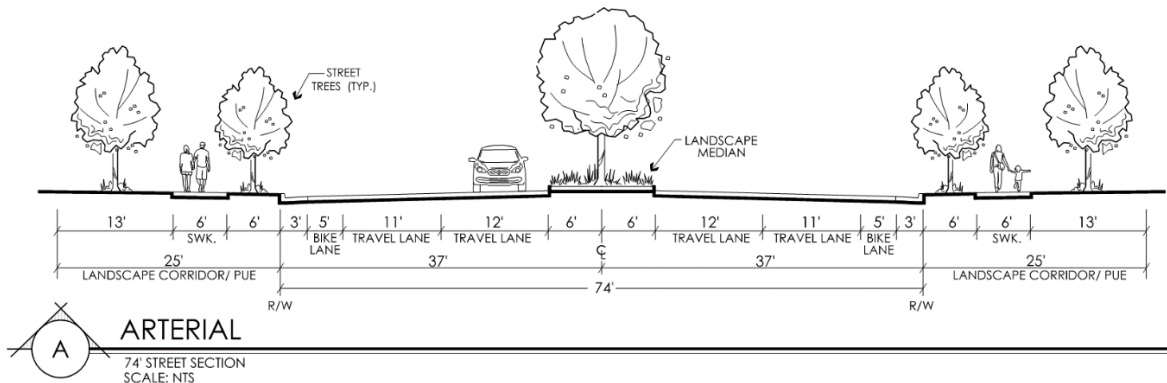
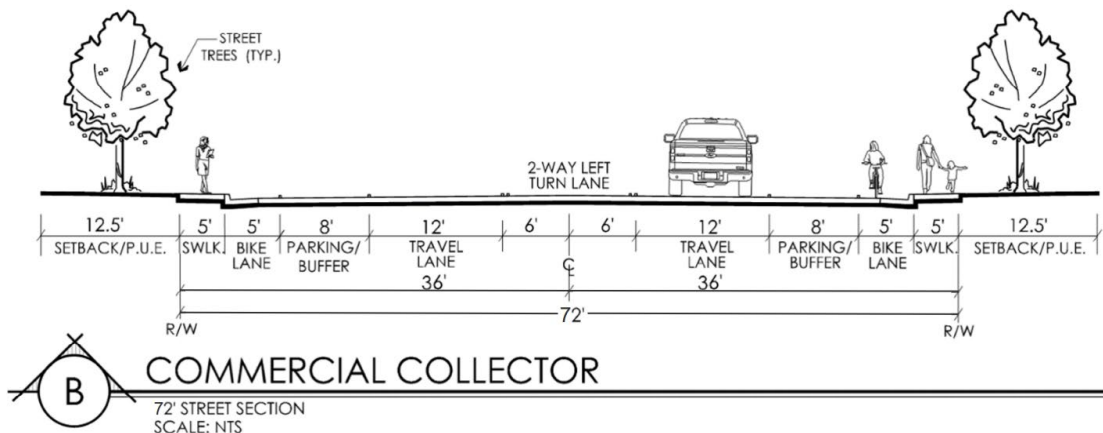


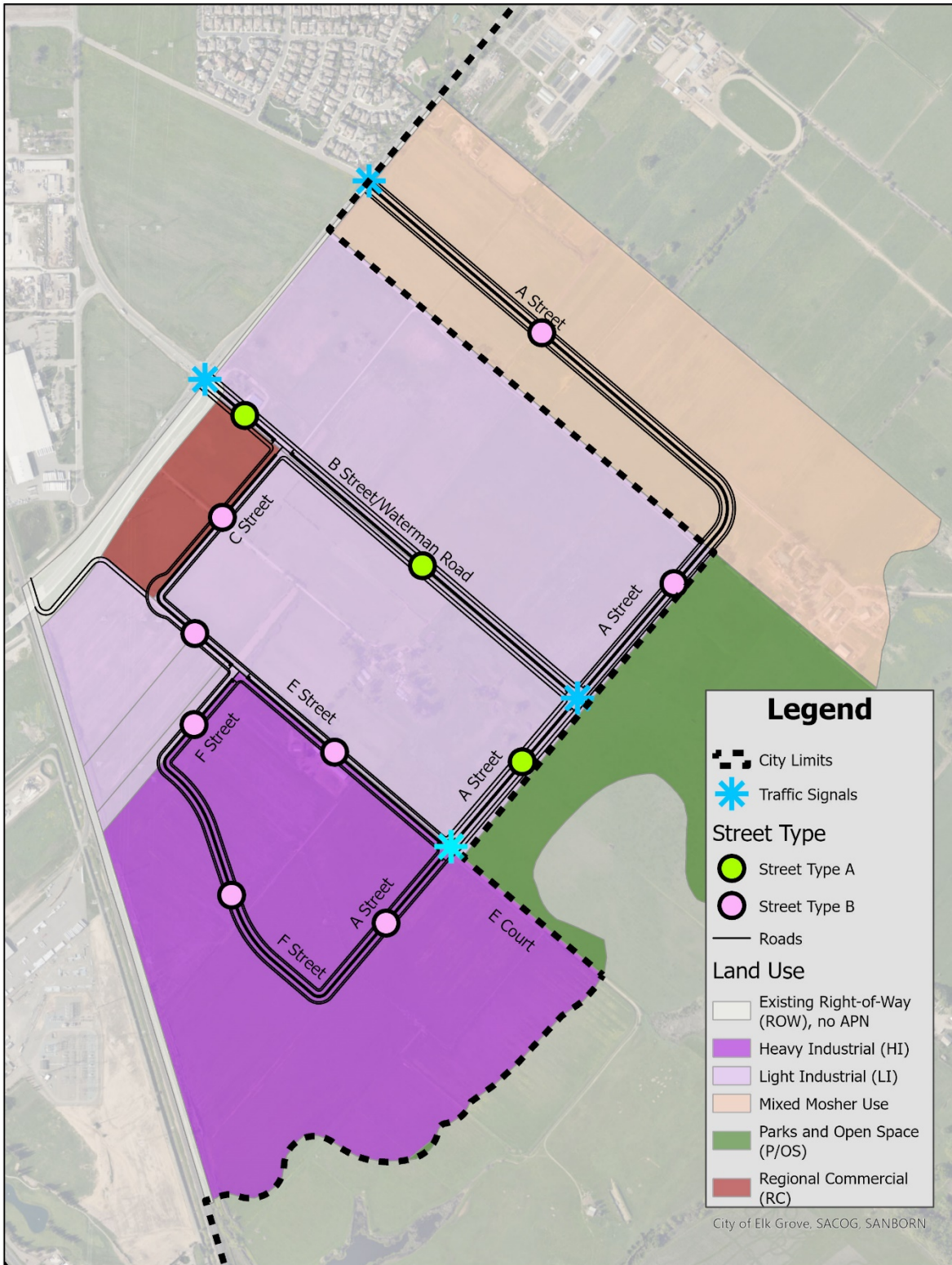
Figure 3-2 Typical Commercial Collector Section (Street Type B)



3.2 Proposed Land Use Exhibits

Following the Transportation Impact Study and the Technical Memorandum, the onsite circulation and segment configuration has been laid out for the proposed land use plan. Figure 3-3 shows the proposed land uses, unique segment identifiers, cross sections for each segment and the location of the proposed Intersection and signal improvements.

Figure 3-3 Land Use Circulation Exhibit



4. Intersections / Signalization Configuration

4.1 Interim Facilities

As depicted in Figure 3-3 there is an existing signalized intersection at Waterman Road and Grant Line Road (S1) and a proposed signalized intersection at Mosher Road and Grant Line Road (S2). The Transportation Impact Study and Technical Memorandum identifies interim improvements at each of these intersections necessary to accommodate the full onsite buildout of the plans area. Those Interim facilities are detailed below. Typical with City policy it is assumed that as development occurs within the plan area these intersections will be analyzed to determine the appropriate level of improvement necessary.

S1 – Waterman Road / Grant Line Road Interim Intersection Configuration

- Three left-turn lanes, one through lane, and one right-turn lane on the northbound approach.
- Two left-turn lane, one through lane, and one right-turn lanes on the southbound approach.
- Two left-turn lanes, four through lanes, and two right-turn lanes on the eastbound approach.
- Two left-turn lanes, four through lanes, and one right-turn lane on the westbound approach.

S2 – Mosher Road / Grant Line Road Interim Intersection Configuration

- One left-turn lane, one through lane, and one right-turn lane on the northbound approach.
- One left-turn lane, one through lane, and one right-turn lane on the southbound approach.
- One left-turn lane, two through lanes, and one right-turn lane on the eastbound approach.
- One left-turn lane, two through lanes, and one right-turn lane on the westbound approach.

The City is currently working on Grant Line Road widening project, WTR002, that is proposing to build some of the eastbound and west bound Grant Line Road improvements identified above. Figures 4-1 and 4-2 show the proposed improvements being constructed by the City of Elk Grove at the Waterman Road / Grant Line Road and Mosher Road / Grant Line Road intersections.

Figure 4-1 Waterman Road / Grant Line Road Interim Improvement

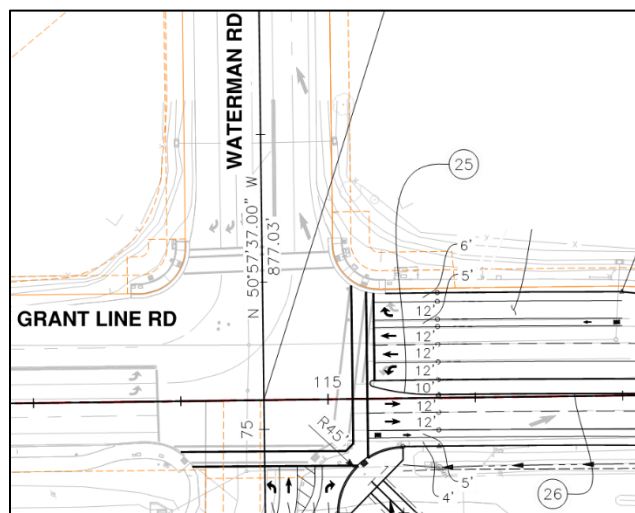
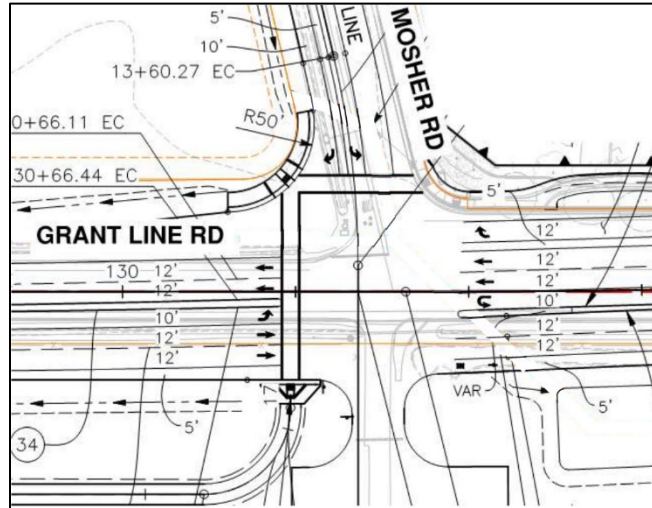


Figure 4-2 Mosher Road / Grant Line Road Interim Improvement



4.2 Ultimate Facilities

The Transportation Impact Study and the Technical Memorandum identifies the ultimate intersection configuration needed to support the build out of the plan area and includes build out levels in the City of Elk Grove in the 2036 forecast year. As mentioned above, and consistent with City policy, it is anticipated that these ultimate intersection improvements may be phased to meet the increased traffic volumes and associated impacts as the plan area builds out.

S1 – Waterman Road / Grant Line Road Ultimate Intersection Configuration

- Three left-turn lanes, one through lane, and one right-turn lane on the northbound approach.
- Two left-turn lanes, one through lane, and one right-turn lane on the southbound approach.
- Two left-turn lanes, four through lanes, and two right-turn lanes on the eastbound approach.
- Two left-turn lane, four through lanes, and one right-turn lane on the westbound approach.

S2 – Mosher Road / Grant Line Road Ultimate Intersection Configuration

- One left-turn lane, one through lane, and one right-turn lane on the northbound approach.
- One left-turn lane, one through lane, and one right-turn lane on the southbound approach.
- One left-turn lane, three through lanes, and one right-turn lane on the eastbound approach.
- One left-turn lane, three through lanes, and one right-turn lane on the westbound approach.

The Transportation Impact Study also identifies two internal signalized intersections that are anticipated at project buildout. These are identified on Figure 3-3 as intersection improvements S3 and S4.

5. Conclusion

This Transportation Master Plan utilizes the plan area Transportation Impact Study and subsequent Technical Memorandum to layout the onsite circulation elements for the final proposed land use. The recommended roadway segments and intersection traffic controls in this plan are designed to accommodate the cumulative buildout travel demand forecast models peak hour and roadway segment traffic volumes. This plan also incorporates pedestrian and shared bike way facilities to provide efficient movement and safe travel spaces for all modes of transportation.

Appendix B: Water Supply Assessment

APPROVED
Board of Supervisors

**SACRAMENTO COUNTY WATER AGENCY
CALIFORNIA**

31

AUG 24 2021

By *Florence Evans*
Clerk of the Board

For the Agenda of:
August 24, 2021

To: Board of Directors,
Sacramento County Water Agency

Through: Ann Edwards, Interim County Executive

Steven L. Hartwig, Deputy County Executive
Public Works and Infrastructure

From: Michael L. Peterson, Director
Department of Water Resources

Subject: Approval Of Water Supply Assessment For Grant Line
Southeast Industrial Area (Phase 1)

District(s): Nottoli

RECOMMENDED ACTION

Approve the attached Water Supply Assessment for Grant Line Southeast Industrial Area (Attachment 1).

BACKGROUND

The California Water Code (Water Code) requires coordination between land use agencies and public water purveyors to ensure that water supplies are adequate to meet existing and planned future demands. Water Code sections 10910 10915 require that land use lead agencies:

1. Identify the public water system for any proposed development project subject to California Environmental Quality Act (CEQA).
2. Request that the public water system prepare a Water Supply Assessment (WSA) that demonstrates that its water supplies are sufficient to meet the proposed project demands in addition to existing and previously identified future demands for a period of 20 years.

The Water Code also requires that specific information be included in the WSA and that the governing body of the public water system approve the WSA at a regular or special meeting.

The City of Elk Grove has requested that the Sacramento County Water Agency (SCWA) produce a WSA for the Grant Line Southeast Industrial Area

(Phase1) development in accordance with the Water Code. Attachment 1 is the final draft of this Water Supply Assessment. It was prepared by SCWA staff and is being submitted to your Board for approval. This project will be served by the Zone 40 conjunctive use program which has been analyzed in the SCWA Water Supply Master Plan. Additionally the 2020 Urban Water Management Plan demonstrates that SCWA's total projected water supplies during normal, single dry and multiple dry water years meet the proposed water demands over the next 20 years. The WSA demonstrates that SCWA water supply will meet project water demands for the next 20-years.

FINANCIAL ANALYSIS

Approval of this assessment will not result in any fiscal impact or obligation to SCWA.

Attachment(s): ATT 1 – Water Supply Assessment for Grant Line Southeast Industrial Area (Phase 1)

Sacramento County Water Agency

Water Supply Assessment for
Grant Line Southeast Industrial Area (Phase 1)

Prepared by Sacramento County Water Agency
July 2021

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INTRODUCTION

BACKGROUND

The California Water Code (Water Code) requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet both existing demands and demands of planned development.

Water Code Sections 10910 – 10915 (inclusive) require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request a “Water Supply Assessment” (WSA) from the responsible purveyor. The objective of a WSA is to demonstrate the sufficiency of a purveyor's water supplies to satisfy the water demands of a proposed development project while still meeting the current and projected water demands of existing customers. Water Code Sections 10910 – 10915 delineate specific information that must be included in a WSA.

THE PROPOSED DEVELOPMENT PROJECT

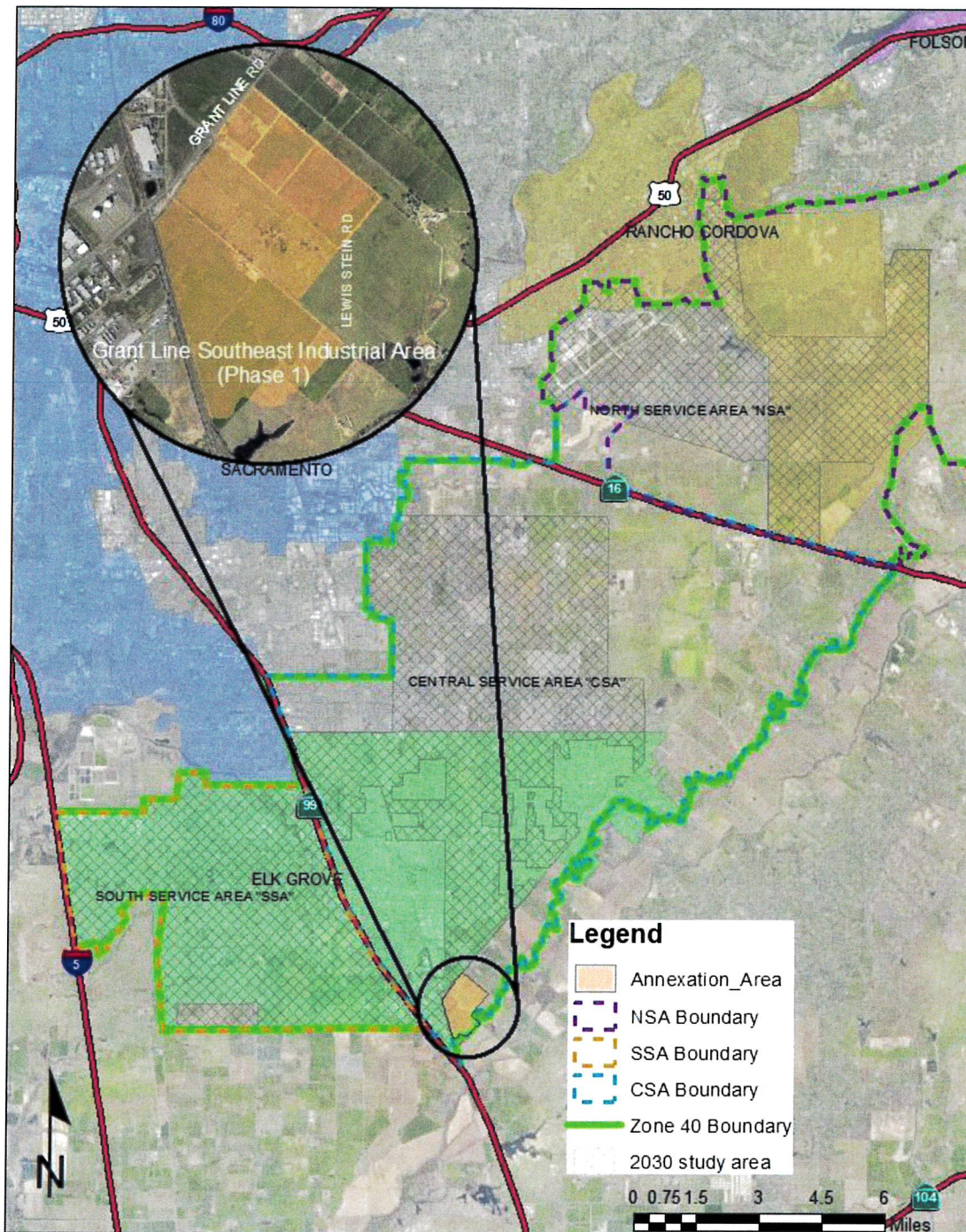
The City of Elk Grove requested the preparation of a Water Supply Assessment for the Grant Line Southeast Industrial Area (Phase 1) (SEIA). The SEIA is located on the south side of Grant Line Road at the existing terminus of Waterman Road. The subject area was included in the Zone 40 Water Supply Master Plan Amendment for the Multi-Sports Complex and Grant Line Industrial Annexation Area and was included in the 2020 Urban Water Management Plan approved by the Sacramento County Water Agency (SCWA) Board on June 15, 2021.

The City of Elk Grove proposes the development of approximately 390 acres of industrial and commercial uses with total building area of approximately 6,000,000 square feet. While the City anticipates individual development projects that do not meet the threshold for completion of a WSA, and such projects may be approved by the City prior to the completion of the WSA, the City is interested in addressing the buildout conditions and completing the WSA for larger projects that may be considered in the future. The final land use plan provided in the request letter differs from the land use plan in the WSMMPA and the changes of parks and open space to light industrial provide for a lower water use than originally anticipated. This WSA considers the industrial and commercial zoning as illustrated in Figure 2. This land plan was included in the Final Supplemental Environmental Impact Report certified by the City in January 2021. It should also be noted that this 390 acres is only a subset of the area in the WSMMPA.

The City of Elk Grove has identified the Sacramento County Water Agency (SCWA) as the responsible water purveyor for SEIA and has requested that SCWA prepare this WSA in accordance with Water Code Sections 10910 – 10915.

WATER SUPPLY ASSESSMENT OBJECTIVE

The objective of the SEIA WSA is to demonstrate that the planned water supplies for SCWA's Zone 40 are sufficient to meet the demands of SEIA in addition to the existing and projected water supply obligations over the next 20 years.



Grant Line Southeast Industrial Area (Phase 1)

SACRAMENTO COUNTY WATER AGENCY
DEPARTMENT OF WATER RESOURCES

Figure 1 Grant Line Southeast Industrial Area Location Map

OVERVIEW OF THE SEIA WSA

The SEIA lies entirely within the boundaries of SCWA's Zone 40/41 service area but outside of the 2030 Study Area of the Water Supply Master Plan (WSMP), (SCWA, 2005). The SEIA area was fully included in the Zone 40 Water Supply Master Plan Amendment for the Multi-Sports Complex and Grant Line Industrial Annexation Area as required by the WSMP for projects outside of the 2030 Study Area (WSMPA) (SCWA, 2021). Since 2005, SCWA has amended the WSMP for the following areas: Cordova Hills (approved), Jackson Township (pending approval), New Bridge (pending approval), and West Jackson (pending approval). In 2016, SCWA also developed the Water System Infrastructure Plan (WSIP) (SCWA, 2016). The WSIP is a staff-level document that describes the projected water supply infrastructure needs to meet the projected built-out water demands in Zone 40, this excludes SEIA demands as they were included in the build-out water system in 2021 through the WSMPA. Subsequently, the 2020 Urban Water Management Plan (UWMP) was developed. The 2020 UWMP demand projections include the estimated SEIA demands.

In addition to the above referenced documents, the following documents may be used in whole or in part for the water assessment for SEIA:

- The Central Sacramento County Groundwater Management Plan (SCGA, February 2006);
- The Final Environmental Impact Report (FEIR) for 2002 Zone 40 Water Supply Master Plan (EDAW, December 2004);
- The Water Forum Agreement (WFA), Sacramento City-County Office of Metropolitan Water Planning, January 2000.

Figure 2 shows the land use diagram of the SEIA provided by the City.

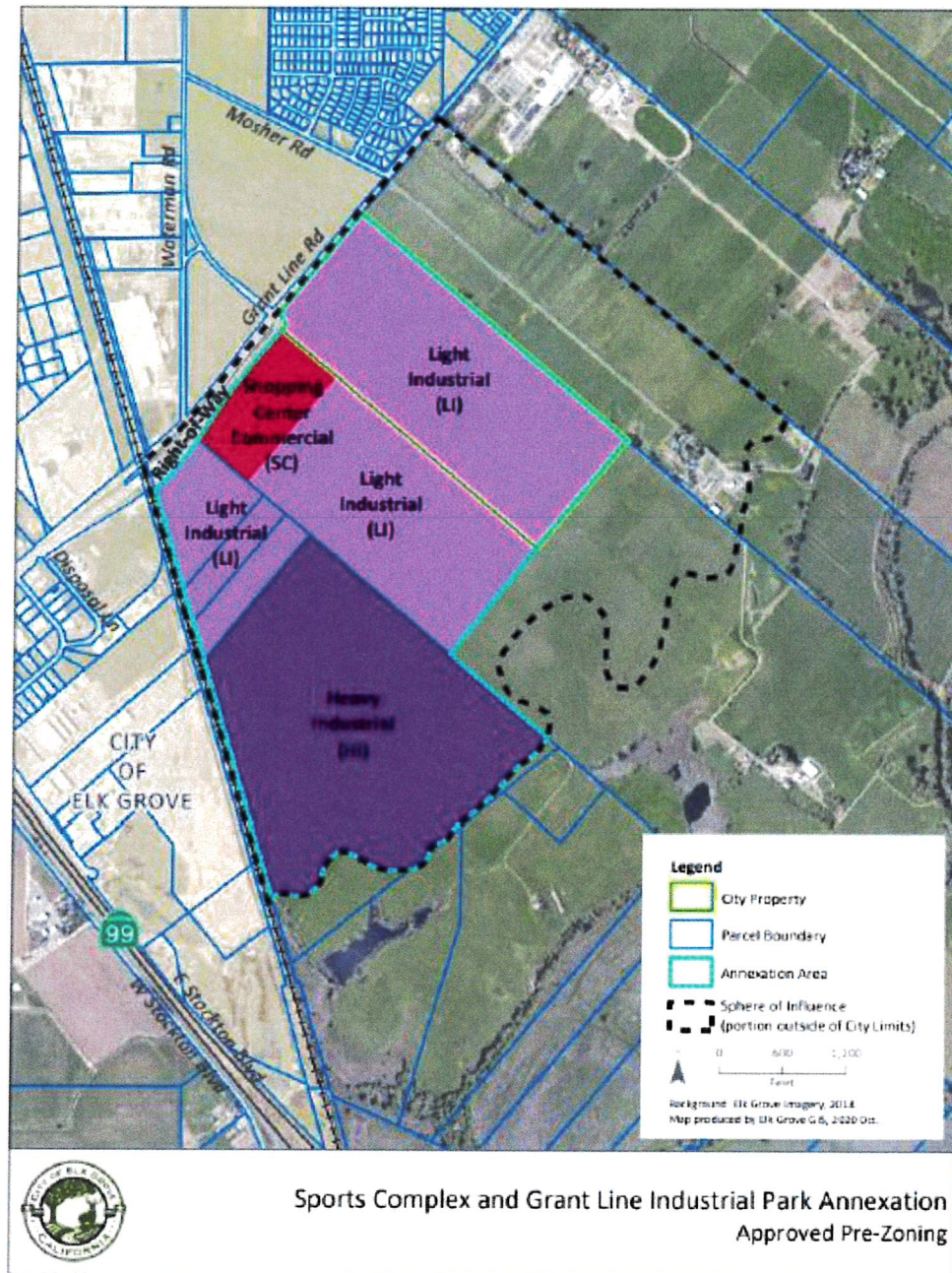


Figure 2 SEIA Land Use Diagram

WSA FOR THE SEIA

Water Code Sections 10910 – 10915 delineate the specific requirements of a WSA. The WSA for SEIA is structured according to these requirements.

DETERMINE IF PROJECT IS SUBJECT TO CEQA [Section 10910 (a)]

The City has made the determination that SEIA is subject to CEQA.

IDENTIFY RESPONSIBLE PUBLIC WATER SYSTEM [Section 10910(b)]

The City has identified SCWA as the responsible public water provider for SEIA.

DETERMINE IF UWMP INCLUDES WATER DEMANDS [Section 10910(c)]

The total area for SEIA is estimated to be 390 acres. The projected annual water demand for the SEIA is 845 acre-feet per year (AF/year), including system losses. The proposed land use and projected water demand for the SEIA is provided in **Table 1**.

Table 1 Proposed Land Use and Water Demands Estimate for the SEIA

Land Uses	Corresponding Land Use Classification in WSMP	Unit Water Demand Factor (AF/Year/Acre)	Gross Acreage	Water Demand (AF/Year)
Residential Designations				
None	None	n/a	n/a	n/a
Non-Residential				
Light Industrial	Light Industrial (LI)	n/a	212	-
Heavy Industrial	Heavy Industrial (HI)	n/a	158	-
Regional Commercial	Regional Commercial (RC)	n/a	20	-
Subtotal – Non-Residential		-	390	-
Total w/o System Loss			390	-
System Loss (7.5%)			-	-
GRAND TOTAL			390	845

Note: Information was provided by The City of Elk Grove in their WSA request letter dated May 26, 2021. Unit Water Demand Factor in WSMPA is 2.17 AF/Year/Acre which gives a total of 846 AF/Year which is close to the City of Elk Grove estimate.

The SEIA is included in the WSMP through the WSMPA and water demand associated with the proposed SEIA are accounted for in the current 2020 UWMP, which describes SCWA's existing and projected water demands through 2045. Therefore, the UWMP will serve as the base document for preparing the WSA for the proposed SEIA. See Section 2.32 – current and Projected Land Use of the 2020 UWMP.

Table 2 Population Projection for SCWA Zone 40

SCWA Service Areas (Table 3-2 of UWMP)	2020	2025	2030	2035	2040	2045
Zone 40 - North Service Area, Central Service Area, South Service Area ¹	169,000	197,027	225,054	253,081	275,698	298,314

¹ Population developed in the 2020 UWMP – see Table 2-7: Zone 40 Population Forecast tied to UWMP connection Projections.

Table 3 Water Demands for SCWA Zone 40 – Normal Year (AF/Year)

	2025	2030	2035	2040	2045
Zone 40 - North Service Area, Central Service Area, South Service Area ¹	46,235	54,494	62,006	68,143	74,388

¹ Water demands developed in the 2020 UWMP – see Table 4-10(a): Zone 40 Forecast Potable Water Use

The water demands for all other dry year scenarios can be found in the 2020 UWMP Chapter 4.

The water demands associated with the SEIA are substantially included in all tables above and in the UWMP. **Table 4** shows the estimated water demand growth for SEIA.

Table 4 Projected Water Demand Growth in Five-Year Increments for the SEIA (AF/Year)

	2022	2025	2030	2035	2040	2045
Projected Water Demand	150	300	567	845	845	845

Note: Information was provided by The City of Elk Grove in their WSA request letter dated May 26, 2021.

IDENTIFY EXISTING WATER SUPPLIES FOR THE PROJECT [Section 10910(d)]

SECTION 10910(d)(1)

Section 10910(d)(1) requires identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for SEIA and a description of the quantities of water obtained by SCWA pursuant to these water supply entitlements, water rights, or water service contracts in previous years.

Chapter 3 of the 2020 UWMP details all SCWA water supplies. Specifically 3.1 details Surface Water Rights and Contracts and 3.2 details Groundwater. SEIA water demands, as part of the Zone 40 water demand, will ultimately be met by conjunctive use of groundwater and surface water and a small portion of recycled water, as described in the WSMPPA and 2020 UWMP.

SECTION 10910(d)(2)

Section 10910(d)(2) requires SCWA to demonstrate that water supplies required to serve SEIA actually exist. Section 10910(d)(2) defines what constitutes “proof.”

Section 10910(d)(2)(A)

This subsection requires written contracts or other proof of entitlement to the water supplies identified for SEIA. The contracts and agreements for the surface water supplies are available for review at the offices of the County of Sacramento, Department of Water Resources.

Initial water demands in SEIA could be met with groundwater. SCWA will exercise its right as a groundwater appropriator to extract groundwater from the basin for delivery to SEIA; surface water will be from existing entitlements diverted from the Sacramento River and treated at the VSWTP. In the long-term, the water demands of the SEIA will be met in accordance with the conjunctive use program described in the WSMMPA.

Section 10910(d)(2)(B)

This subsection requires a copy of the capital outlay program for financing the delivery of the identified water supply to SEIA. The documents described below are available for review at the offices of the County of Sacramento, Department of Water Resources.

A financing plan for the construction of groundwater and surface water facilities needed to realize the conjunctive use program identified in the WSMP and WSMMPA has been approved by SCWA’s Board of Directors (Board). The financing plan, as outlined in Chapter 7 of the WSMP, identifies the necessary water facility projects and estimated costs associated with implementation of said conjunctive use program (Capital Improvement Program or CIP). Section 8.3.2 of the WSMMPA identifies additional infrastructure that will be required as a result of the WSMMPA.

In addition to the WSMP, the Feasibility Report for Sacramento County Water Financing Authority Series 2007 Revenue Bonds (Sacramento County Water Agency Freeport Project) (MWH, April 2007), and the Sacramento County Water Agency FY 2009/10 Water Rate Study Report (FCS Group) evaluated and updated the total cost and fee requirements of the Zone 40 conjunctive use program incorporating all future Zone 40 expenditures for major capital facilities (i.e., surface water treatment plants, groundwater treatment plants, major transmission mains, etc.) and annual operation and maintenance costs. Funding to meet SCWA’s capital and annual funding requirements was then implemented by the Board through the issuance of revenue bonds for certain projects and the adoption of user fee and development fee increases over time.

SCWA’s capital outlay program includes the means for financing facilities to deliver the identified water supply to SEIA. Specifically, all facilities needed to serve SEIA are included in the CIP, as detailed in the WSMMPA, that was financed through the above described revenue bonds, user fee, and development fee. The development fee and user fee, as described in Titles 3 and 4 of the Sacramento County Water Agency Code, will continue to provide revenue to finance all aspects of the Zone 40 conjunctive use program, including repayment of debt financing. Both fee programs are evaluated annually and adjusted, if necessary, to accommodate

changes in the service area, water demands, needed capital projects, and required debt financing. Based on the CIP, a 10-year CIP is annually updated by the Board of Directors.

Section 10910(d)(2)(C)

This subsection requires identification of any federal, state, and local permits required for construction of the facilities identified for delivering the water supply to SEIA.

Water deliveries to the SEIA will be made through connecting to the existing T-mains surrounding SEIA and additional infrastructure internal to SEIA as detailed in the WSMIPA.

Section 10910(d)(2)(D)

This subsection requires identification of any regulatory approvals required for delivery of the water supply to SEIA.

Water production, treatment, and storage facilities will be added to SCWA's public water system permit issued by the California Department of Public Health (DPH) and the design of these facilities will require review and approval by DPH. No other regulatory approvals are anticipated.

New water service and discretionary approval of any project may be withheld until compliance with the Endangered Species Act (ESA) is demonstrated. Depending upon the source of water, compliance may be demonstrated by one of the following: participation in the South Sacramento Habitat Conservation Plan (SSHCP); a letter from the US Fish and Wildlife Service (USFWS) to the project proponent and/or federal agency indicating the Project is not likely to adversely affect or result in a take of listed species; incidental take coverage through a biological opinion for the project; or, incidental take coverage through an ESA section 10(a)(1)(B) permit for the project. This requirement may be a condition of approval for any discretionary action taken by the local land use authority.

IDENTIFY PARTIES DEPENDENT UPON PROPOSED SUPPLY [Section 10910(e)]

SECTION 10910(e)

Section 10910(e) states:

"If no water has been received in prior years by the public water system..., under the existing water supply entitlements, water rights, or water service contracts [identified to serve the proposed project], the public water system, ...shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system, ..., has identified as a source of water supply within its water supply assessments."

The intent of this section is to identify any potential conflicts that may arise from the exercise of a water supply entitlement, water right, or water service contract to serve a proposed project if

such water supply entitlement, water right, or water service contract has not been previously exercised.

Use of Groundwater

The water demands of Zone 40 (including SEIA) will be met with groundwater and surface water. SCWA has previously exercised its rights as a groundwater appropriator to meet the water demands of its customers and will continue to exercise those rights to provide treated groundwater supplies to SEIA.

Use of Surface Water

The surface water supplies associated with SCWA's conjunctive use program fall into three categories:

- 1) Purchased water supplies available through a current USBR CVP contract.
- 2) Purchased water available through the City of Sacramento for use within the American River Place of Use (POU).
- 3) Water supplies available through SWRCB Permit 21209.

For USBR CVP purchased water and SWRCB Permit 21209 surface water, the parties that could most directly be affected are other CVP contractors, State Water Project (SWP) contractors, water rights holders subject to Term 91 conditions, and riparian diverters downstream of SCWA's point of diversion. The point of diversion is at a site near the community of Freepoint on the Sacramento River.

The source of POU water supply is wholesale water from the City of Sacramento to serve the area that lies within the POU. Delivery of this water to SCWA has been included in the City of Sacramento's long-range plan for perfecting their American River water rights. The diversion location, timing, and volume of delivery are currently under negotiation.

DOES SUPPLY FOR PROJECT INCLUDE GROUNDWATER? [Section 10190(f)]

SECTION 10910(f)

As stated earlier, the water supply for Zone 40 (including the SEIA) include groundwater. Section 10910(f) requires additional information about groundwater to be presented in this WSA.

Section 10910(f)(1)

Section 10910(f)(1) requires a review of groundwater information contained in the UWMP relevant to the identified water supply for SEIA. Section 3.2 of the 2020 UWMP provides a description of the applicable groundwater basins, the status of groundwater management, overdraft conditions, historical groundwater pumping, and the remediated groundwater supply.

Section 10910(f)(2)

Section 10910(f)(2) requires a description of the groundwater basin and the efforts being taken to prevent long-term overdraft.

Section 3.2.2 of the 2020 UWMP describes groundwater management in the South American Subbasin. Below is information for historical context.

- **South American Subbasin (5-21.65)**

For SEIA, SCWA would pump groundwater from the South American Sub-basin as defined by the California Department of Water Resources (DWR) Bulletin 118. According to Bulletin 118, the South American Sub-basin is defined as the area bounded on the west by Interstate 5 and the Sacramento River, on the north by the American River, on the south by the Cosumnes and Mokelumne rivers and on the east by the Sierra Nevada. The Central Basin covers a major portion of this basin.

Groundwater in the Central Basin is generally classified as occurring in a shallow aquifer (Laguna or Modesto Formation) and in a deep aquifer (Mehrten Formation). The Laguna or Modesto Formation consists of older alluvial deposits of loosely to moderately compacted sand, silt, and gravel deposited in alluvial fans. These deposits are moderately permeable and have a thickness of about 100 to 650 feet. The deeper Mehrten Formation is a sequence of fragmented volcanic rocks which crops out in a discontinuous band along the eastern margin of the basin. It is composed of black volcanic sands, stream gravels, silt, and clay inter-bedded with intervals of dense tuff breccia. The sand and gravel intervals are highly permeable and the tuff breccia intervals act as confining layers. The thickness of the Mehrten Formation is between 200 and 1,200 feet. Groundwater is located from 20 to 100 feet below the ground surface depending on when and where the measurement is taken. The base of the potable water portion of the deep aquifer is located approximately 1,400 feet below the ground surface.

Intensive use of groundwater over the past 60 years has resulted in a general lowering of groundwater elevations. Over time, isolated groundwater depressions have grown and coalesced into a single cone of depression that is centered in the southwestern portion of the basin. Groundwater level trends through much of the basin have generally declined consistently from the 1950s and 1960s to about 1980 by 20 to 30 feet. From 1980 through 1983, water levels recovered by about 10 feet and remained stable until the beginning of the 1987-1992 drought; however, wells in the vicinity of Rancho Cordova appear to have recovered less than other wells in the basin since 1995 (generally less than 10 feet). From 1995 to 2003 most groundwater levels recovered to levels that were generally higher than levels prior to the 1987 through 1992 drought. Much of this recovery can be attributed to the increased use of surface water in the Central Basin, and the fallowing of previously irrigated agricultural lands transitioning into new urban development areas. In the central portion of the Central Basin groundwater level trends observed in California Department of Water Resources monitoring wells generally vary between 40 feet above to 40 feet below mean sea level over the period of the 1950's through the 2000's.

Recharge of the aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the American, Cosumnes, and Sacramento rivers. Additional recharge occurs along the eastern boundary of Sacramento County at the transition point from the consolidated rocks of the Sierra Nevada to the alluvial-deposited basin sediments. This recharge is classified as subsurface recharge along with underground flow into and out of the basin with adjacent groundwater basins. Other sources of recharge include deep percolation from applied surface water and precipitation.

As mentioned previously, the estimated long term annual sustainable yield of groundwater from the Central Basin is 273,000 AF/year. The determination of the sustainable yield of the Central Basin (273,000 acre-feet per year) was negotiated by the Water Forum Groundwater Negotiating Team (GWNT) and involved a complex process that developed the long-term average annual pumping limit of the basin. The long-term average annual pumping limit is described as the hydro-geologic process under which groundwater can be pumped and not exceed average natural recharge over a long-term period of time. Under sustainable conditions, natural recharge is said to be able to make up for variations in the amount of pumping that occurs over the long-term, given wet and dry periods in the hydrologic record.

First, the GWNT developed future land and water use projections. Then the impacts associated with increased water demands, assuming that demand is met solely by groundwater, were described. These results were then compared with 1990 baseline conditions to provide the level of impact that could be expected if groundwater pumping were increased beyond baseline conditions.

Four quantifiable factors were used to determine the level of impact:

- 1) Water quality degradation
- 2) Dewatering of wells
- 3) Higher cost of pumping
- 4) Ground subsidence

Based on these four factors, a series of groundwater model runs quantified each condition in 10-year increments, beginning in 1990 and ending in 2030. Each model run was set up to reflect future land and water use conditions; then 70 years of historical hydrology were applied to each model run to determine how the aquifer might behave under wet and dry conditions.

After comprehensive review and analysis of the resulting data, the GWNT concluded that using 2005 levels of groundwater pumping (interpolated from the 2000 and 2010 modeling results) would provide the highest quantity of groundwater yield from the basin while minimizing impacts associated with the four factors of concern. Accordingly, the GWNT determined the 2005 pumping rates equated to a long-term pumping average annual pumping limit of approximately 273,000 acre-feet per year for the Central Basin.

- **SCWA Conjunctive Use Program**

Section 3.2 and Appendix E of the WSMP provide detailed descriptions of the Zone 40 conjunctive use program. SCWA's operational approach for preventing overdraft of the groundwater basin underlying Zone 40 and optimizing the use of both groundwater and surface water is discussed in detail in these sections. The FEIR for 2002 Zone 40 Water Supply Master Plan includes an extensive analysis of the effects of the Zone 40 conjunctive use program on the groundwater basin and on various recharge sources. A summary of the conjunctive use program is as follows:

SCWA's conjunctive use program is a coordinated approach to manage surface water and groundwater supplies to maximize the yield of available water resources. The conjunctive use

program for SCWA includes the use of groundwater, surface water, remediated water, and recycled water supplies. The program also includes the construction of a surface water diversion structure, a surface-water treatment plant, and water conveyance pipelines, as well as groundwater extraction, treatment, and distribution facilities.

This conjunctive use program relies on an abundance of surface water in wet years when as much surface water as possible will be diverted, within entitlement limitations, minimizing the use of groundwater. During these years the groundwater aquifer will be allowed to naturally replenish. In dry years, when surface water availability is reduced, SCWA will pump more groundwater from the replenished aquifer. Using surface water and groundwater conjunctively makes it easier for SCWA to meet demands in a single dry year or in multiple dry years. The goal of the conjunctive use program is to meet all demands during wet and dry years.

SCWA has adopted policies to insure systematic, incremental implementation of its conjunctive use program. These policies are also consistent with the terms of the WFA, which is intended to maintain a long-term sustainable groundwater supply. The policies are included in the SCWA's UWMP and WSMP, which include specific action items to assure implementation. Action items include development of additional surface water supply and treatment facilities to provide water during wet years, development of groundwater facilities to provide groundwater during dry years, in-lieu "banking" of groundwater during wet years, development and implementation of demand management and water conservation strategies, development of water reclamation facilities to meet non-potable demands, and development of a financing plan to implement these action items.

- **Groundwater Management Plan (GMP)**

As a part of the Groundwater Authority, SCWA has committed to the implementation of the Central Basin GMP. The Central Basin GMP contains five Basin Management Objectives (BMOs) designed to maintain a safe, sustainable and high quality groundwater resource within the Central Basin. These BMOs, in conjunction with the program component action items, focus on managing and monitoring the basin to benefit all groundwater users in the basin and are intended to be specific enough to result in numerical criteria for the basin, but also flexible enough to be modified or adapted to new information on groundwater basin behavior over time. The five BMOs are summarized below:

1. Maintain the long-term average groundwater extraction rate at or below 273,000 acre-feet per year.
2. Maintain specific groundwater elevations within all areas of the basin consistent with the Water Forum "solution."
3. Protect against any potential inelastic land surface subsidence by limiting subsidence to no more than 0.007 feet per 1 foot of drawdown in the groundwater basin.
4. Protect against any adverse impacts to surface water flows in the American, Cosumnes and Sacramento rivers.
5. Water quality objectives:
 - a. Total Dissolved Solids (TDS) concentration of less than 1,000 milligrams per liter (mg/l).
 - b. Nitrate (NO₃) concentration of less than 45 mg/l.

c. Volatile Organic Compounds (VOC).

The Groundwater Authority intends to achieve these objectives by implementing the following program component action items:

1. Stakeholder involvement; including public outreach, involving other agencies inside and adjacent to the basin, developing relationships with state and federal agencies, and pursuing partnership opportunities.
2. Monitoring program; including groundwater elevation monitoring, groundwater quality monitoring, land surface elevation monitoring, surface water/groundwater interaction monitoring, establishing protocols for collection of groundwater data, and establishing a data management system.
3. Groundwater resource protection; including well construction policies, well abandonment and destruction policies, wellhead protection measures, protection of recharge areas, control of the migration and remediation of contaminated groundwater, and control of saline water intrusion.
4. Groundwater sustainability; including demand reduction.
5. Planning integration; including existing integrated planning efforts, urban water management planning, Drinking Water Source Assessment and Protection (DWSAP) program, land use planning, and integrated groundwater and surface water modeling.

The Central Basin GMP also has an implementation plan that defines specific actions or trigger points and associated remedy activities linked with each of the BMOs. Once a trigger point has been reached, the Groundwater Authority must decide on a course of action.

Water quality analysis of the aquifers underling the Central Basin has shown that groundwater quality found in the upper aquifer system is of higher quality than that found in the lower aquifer system. This is principally because the lower aquifer system (specifically the Mehrten Formation) contains higher concentrations of iron and manganese and higher concentrations of total dissolved solids (TDS). Notwithstanding these findings, the lower aquifer typically meets water quality standards as a potable water source. Water from the upper aquifer (specifically the Laguna Formation) generally does not require treatment, unless high arsenic values are encountered, other than disinfection for public drinking water systems.

- **Sustainable Groundwater Management Act (SGMA)**

The Sustainable Groundwater Management Act (SGMA) was enacted by the legislature in 2014, with subsequent amendments in 2015. SGMA requires groundwater management in priority groundwater basins, which includes the formation of Groundwater Sustainability Agencies (GSAs) and the development of Groundwater Sustainability Plans (GSPs) for groundwater basins or subbasins that are designated by DWR as medium or high priority.

The designation of the priority of groundwater basins was done as part of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. CASGEM was developed in response to legislation enacted in California's 2009 Comprehensive Water package. The CASGEM Groundwater Basin Prioritization is a statewide ranking of groundwater basin importance that incorporates groundwater reliance and focuses on basins producing greater than

90 percent of California's annual groundwater. The CASGEM Program has ranked the South American Subbasin (5-21.65) as high priority.

SGMA directs DWR to identify groundwater basins and subbasins in conditions of critical overdraft. DWR identified such basins in Bulletin-118, 1980 and Bulletin 118, Update 2003. DWR issued an updated draft list of critically over drafted basins in July 2015. The South American subbasin is not on this list.

Groundwater basins designated as high or medium priority and identified as critically over-drafted must be managed under GSPs, adjudications, or alternatives by January 31, 2020. All other high and medium priority basins not identified as critically over-drafted must be managed under a GSP by January 31, 2022. The South American subbasin that supplies SCWA's Zone 40 is covered by the latter deadline.

Section 10910(f)(3)

Section 10910(f)(3) requires a description of the volume and geographic distribution of groundwater extractions from the basin for the last five years.

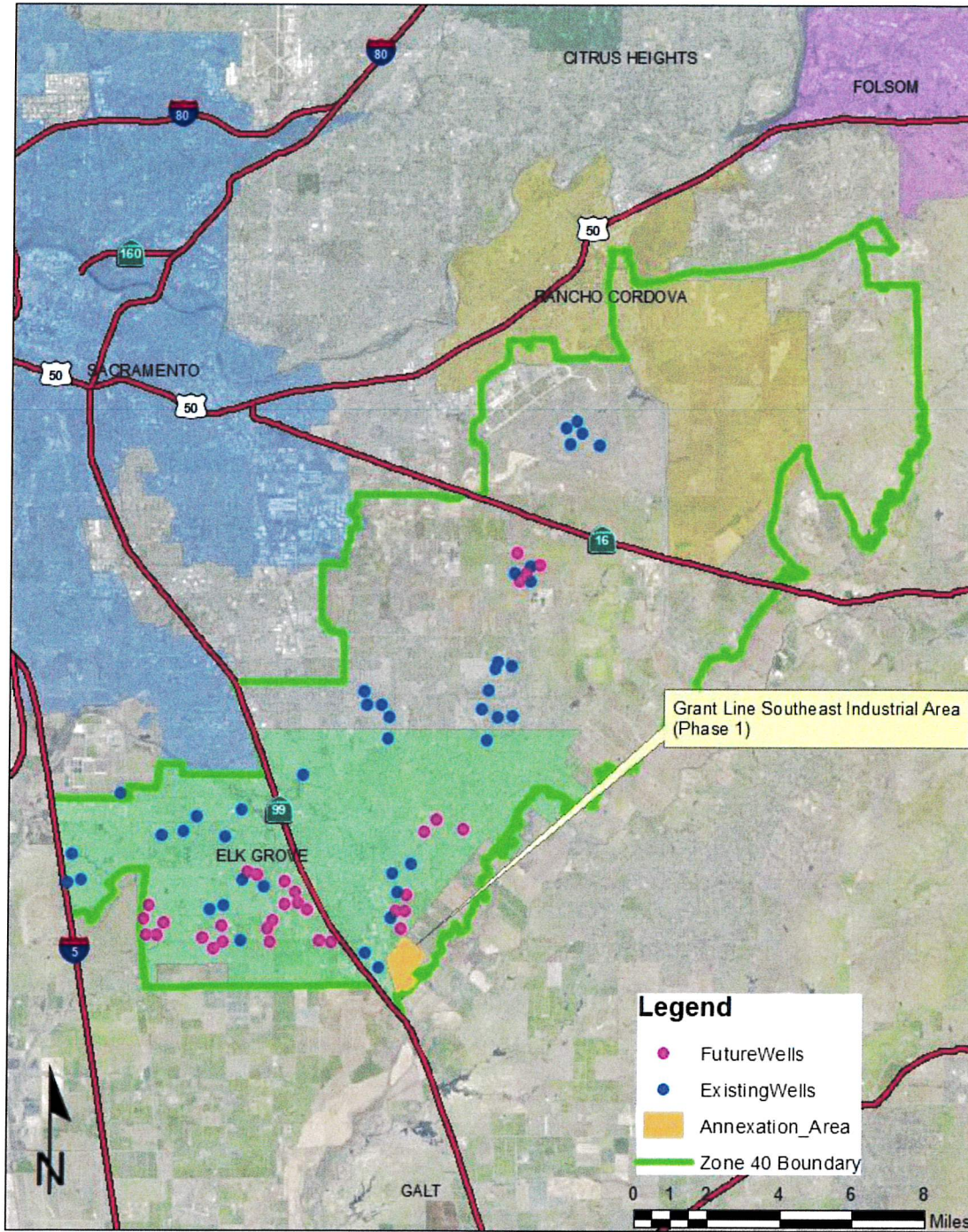
Table 5 identifies past volumes of groundwater extracted by SCWA in Zone 40 between 2000 – 2020. The 2020 UWMP contains 2016-2020 in Table 3-29.

Table 5 Historical Groundwater Pumping in Zone 40, 2000 – 2020

Year	(Acre-Feet)
2000	20,022
2001	22,306
2002	22,949
2003	22,745
2004	25,790
2005	29,184
2006	31,162
2007	31,249
2008	34,225
2009	34,249
2010	32,171
2011	29,809
2012	26,363
2013	23,274
2014	19,683
2015	20,675

2016	18,856
2017	17,157
2018	16,748
2019	14,654
2020	22,475

Through the water supply master planning process, SCWA identified a system of sixteen separate well fields throughout Zone 40. A distributed groundwater extraction strategy was selected because it would minimize drawdown effects of pumping by spreading extraction over a wide geographic area. The approximate locations of the SCWA's current and future well fields is shown in **Figure 3**.



Grant Line Southeast Industrial Area (Phase 1)

 **SACRAMENTO COUNTY WATER AGENCY**
DEPARTMENT OF WATER RESOURCES

Figure 3 Existing and Future Well Fields in SCWA Zone 40

Section 10910(f)(4)

Section 10910(f)(4) requires a description of the projected volume and geographic distribution of groundwater extractions from the basin.

Groundwater use has declined since the VSWTP has come online, but it will increase over time as water demand continues to grow in Zone 40. In wet and normal years, groundwater pumping will be minimized because surface water becomes the major water supply source. In dry years, groundwater pumping will increase significantly as surface water availability is considerably reduced. Section 3.2.2 Zone 40 Groundwater in the 2020 UWMP describes the groundwater use through 2045.

Section 10910(f)(5)

Section 10910(f)(5) requires an analysis of the sufficiency of the groundwater basin to meet the demands associated with SEIA.

The WFA defined a long-term sustainable average annual yield of 273,000 AF/year for the Central Basin and provided for SCWA's groundwater needs as identified in the WSMP. The WSMP describes a conjunctive use program that identifies and projects a long-term average use of groundwater to meet identified water demands, including the demand associated with SEIA.

SCWA's conjunctive use program has been extensively analyzed and documented in the WSMP, the FEIR for 2002 WSMP (certified in February 2006), the FEIR – WFA (certified in 1999), and the WFA. Further the WSMFA added the SEIA area to the program in 2021 and was supported by the Elk Grove Multi-Sport Park Complex and Southeast Industrial Annexation Area Supplemental Environmental Impact Report (certified on January 27, 2021). All referenced documents have been subjected to thorough technical peer review and public scrutiny.

DETERMINATION OF SUFFICIENCY

SCWA determines that it has identified sufficient water supplies to meet the water demands of SEIA over the next 20 years during normal, single dry, and multiple dry years.

SCWA makes this determination based on the information provided in this WSA and on the following specific facts:

- SCWA's conjunctive use program is a sustainable water supply program that provides a 100-percent reliable water supply while protecting environmental values and stabilizing the groundwater basin underlying Zone 40.
- SCWA's conjunctive use program has been extensively analyzed and documented in the WSMP, the FEIR for 2002 WSMP (certified in February 2006), the FEIR – WFA (certified in 1999), the WFA, and the Elk Grove Multi-Sport Park Complex and Southeast Industrial Annexation Area Supplemental Environmental Impact Report

(certified on January 27, 2021). All referenced documents have been subjected to thorough technical peer review and public scrutiny.

- SEIA will be served by water supplies made available through SCWA's conjunctive use program.
- A financing plan for SCWA's conjunctive use program for constructing facilities required for delivering groundwater and surface water to SEIA has been approved by the Board through its adoption of the WSMPA, WSMP, Bond Feasibility Reports, and the Sacramento County Water Agency Code.

The 2020 UWMP demonstrates that SCWA's total projected water supplies during normal, single dry, and multiple dry water years meet the proposed water demands over the next 20 years.

CONCLUSION

This WSA documents all required information specifically delineated by Water Code Sections 10910 – 10915. It demonstrates that SCWA's water supplies are sufficient to satisfy the water demands of the currently proposed SEIA while still meeting the current and projected water demands of existing customers in the next 20 years. If there are significant changes to land uses for the proposed SEIA in the future, this WSA may need to be revisited and updated accordingly.

Appendix C: Drainage Master Plan Amendment

DRAINAGE TECHNICAL MEMORANDUM

ATTENTION: Christopher Jordan

FROM: Pamela Dalcin-Walling

SUBJECT: WRD052 Southeast Industrial Area Storm Drain Improvements

DATE: December 8, 2021

The purpose of this memorandum is to document the interim and ultimate condition drainage improvements needed to accommodate the initial developments and the Mahon watershed of the Southeast Industrial Area in the City of Elk Grove.

1. INTRODUCTION

1.1 Background

The City of Elk Grove (City) is planning for the development of an area referred to as the Southeast Industrial Area (SEIA) located at the southern limits of the City and north of Deer Creek. The SEIA is comprised of three watersheds (the Mosher, Grant Line, and Mahon Watersheds) and encompasses an area along Grant Line Road (GLR) that spans from the Union Pacific Railroad to approximately 700 feet northeast of Mosher Road. All of the privately owned parcels in the SEIA are currently undeveloped or used for agricultural purposes. The City owns an undeveloped 100-acre parcel within the Mahon watershed that is zoned for light industrial land use. This parcel, which was previously being considered for a sports park complex, has been subdivided and sold for private development. See **Figure 1** for a vicinity map of the project area and the adjacent developments.

As part of the development planning process for the SEIA and the City parcel, the City prepared the Multi-Sport Park Complex Drainage Master Plan (DMP).

The DMP studied the SEIA to develop the preliminary designs of the regional drainage and water quality facilities required to accommodate the developed condition. Specifically, the DMP determined the following:

- Allowable discharge rates to Deer Creek based on the historic predeveloped discharge rates
- Preliminary alignments and sizes of the storm drain trunklines
- Preliminary locations and sizes of multi-purpose basins for flow attenuation, hydromodification, and stormwater treatment
- Impacts to the Deer Creek hydraulics based on the proposed discharge rates from the SEIA

Within the DMP, three alternatives were analyzed based on the different land use configurations under consideration for the City parcel:

- Alternative A - Land use for the entire 100-acre City parcel would be an open space sports park.

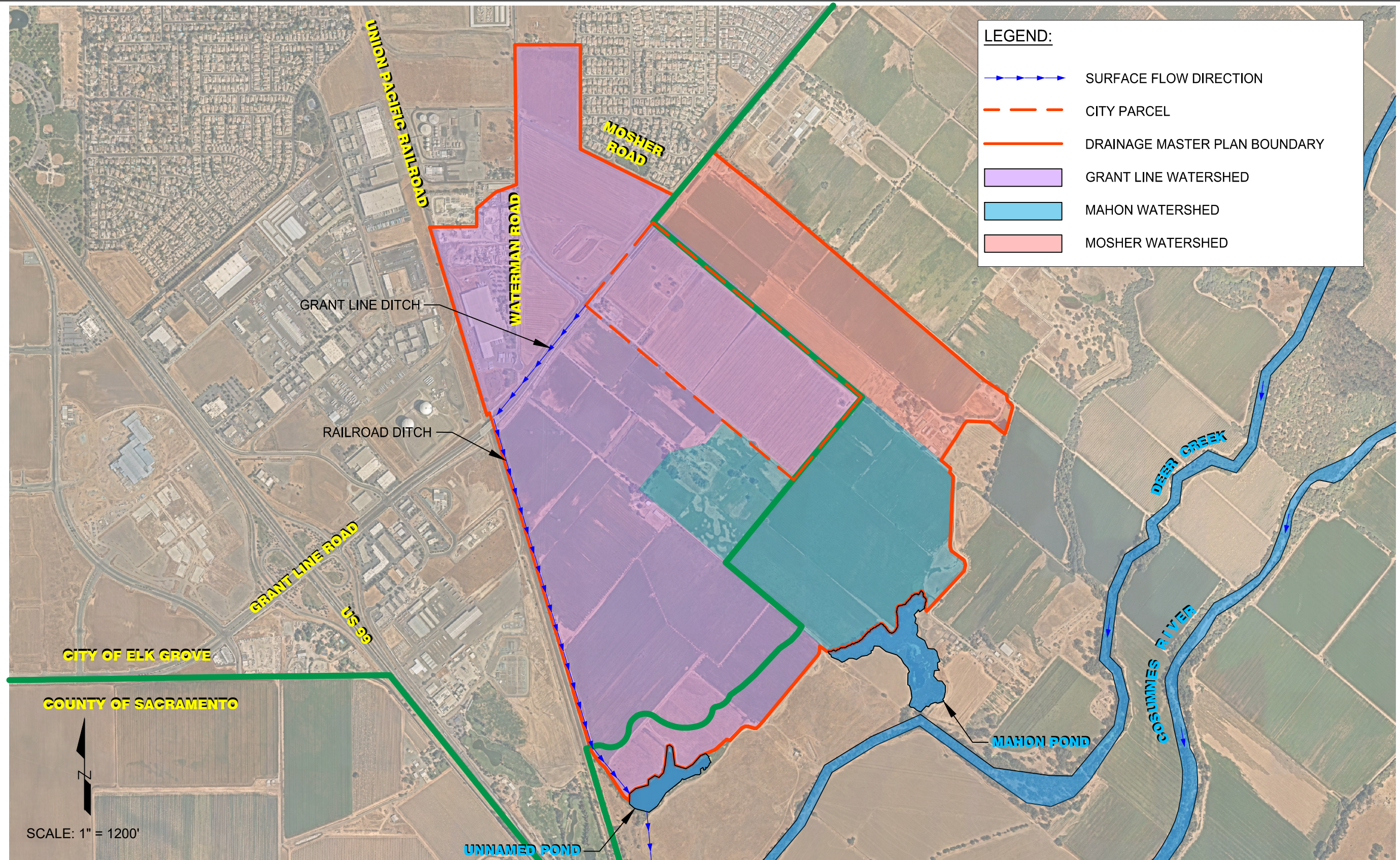


Figure 1 - Project Vicinity Map

- Alternative B – Land use for the City parcel would be a mix of open space sports park and light industrial land uses.
- Alternative C – Land use for the City parcel would be light industrial.

The DMP analyzed Alternatives A and B quantitatively, while Alternative C was analyzed qualitatively. Subsequent to the DMP being finalized, the City decided it would no longer pursue the development of a sports complex and is now planning for full development of the City parcel as a light industrial land use (Alternative C).

The DMP concluded that to adequately support the various developments within the SEIA, the City would need to construct a municipal storm drain trunkline along the future Waterman Road Extension, traversing the Mahon Ranch and ultimately discharging into the Mahon Pond. Each of the storm drain systems for the adjacent developments would tie in and discharge to this trunkline.

1.2 Project Description

The ultimate municipal storm drain improvements associated with the Mahon watershed include a 24- to 36-inch storm drain system under GLR, which discharges to a 60-inch storm drain trunkline aligned from the intersection of GLR and Waterman Road to the southwest to an outfall at the Mahon Pond. These improvements are shown in **Figure 2**.

This storm drain system will serve the initial SEIA developments, including the Triangle Point, Kubota, and Panattoni sites. The Kubota site is located within the northwest half of the City's 100-acre parcel. Kubota has purchased this portion of the City's parcel. These three developments are located in the Mahon watershed as described in the DMP and are planned for construction in the summer of 2022 (see Figure 2). Each of the initial SEIA developments include private storm drain systems and basins, which will connect to the City's storm drain trunkline.

The lead time required to complete design and right of way (ROW) acquisition may exceed the time remaining before the SEIA initial developments will be in place. If that ends up being the case, the City is prepared to implement an interim condition where runoff would be pumped to ditches in the adjacent Grant Line watershed. The Grant Line watershed is tributary to Deer Creek, similar to the Mahon watershed. The interim improvements, as originally developed by the Kubota and Triangle Point developers, and subsequently modified to accommodate the Panattoni development, include a segment of the City's storm drain trunkline spanning from GLR to the Panattoni site outfall, an interim City basin adjacent to the Kubota basin connected by equalizer pipes, and an interim pump system to discharge runoff generated at the developed sites to the GLR ditch. These improvements are shown in **Figure 3**.

The interim drainage facilities, if needed, will utilize portions of the ultimate trunkline and are envisioned to be in place for one season, until such time as the final design and ROW acquisition are completed and the ultimate Mahon watershed storm drain facilities are constructed.

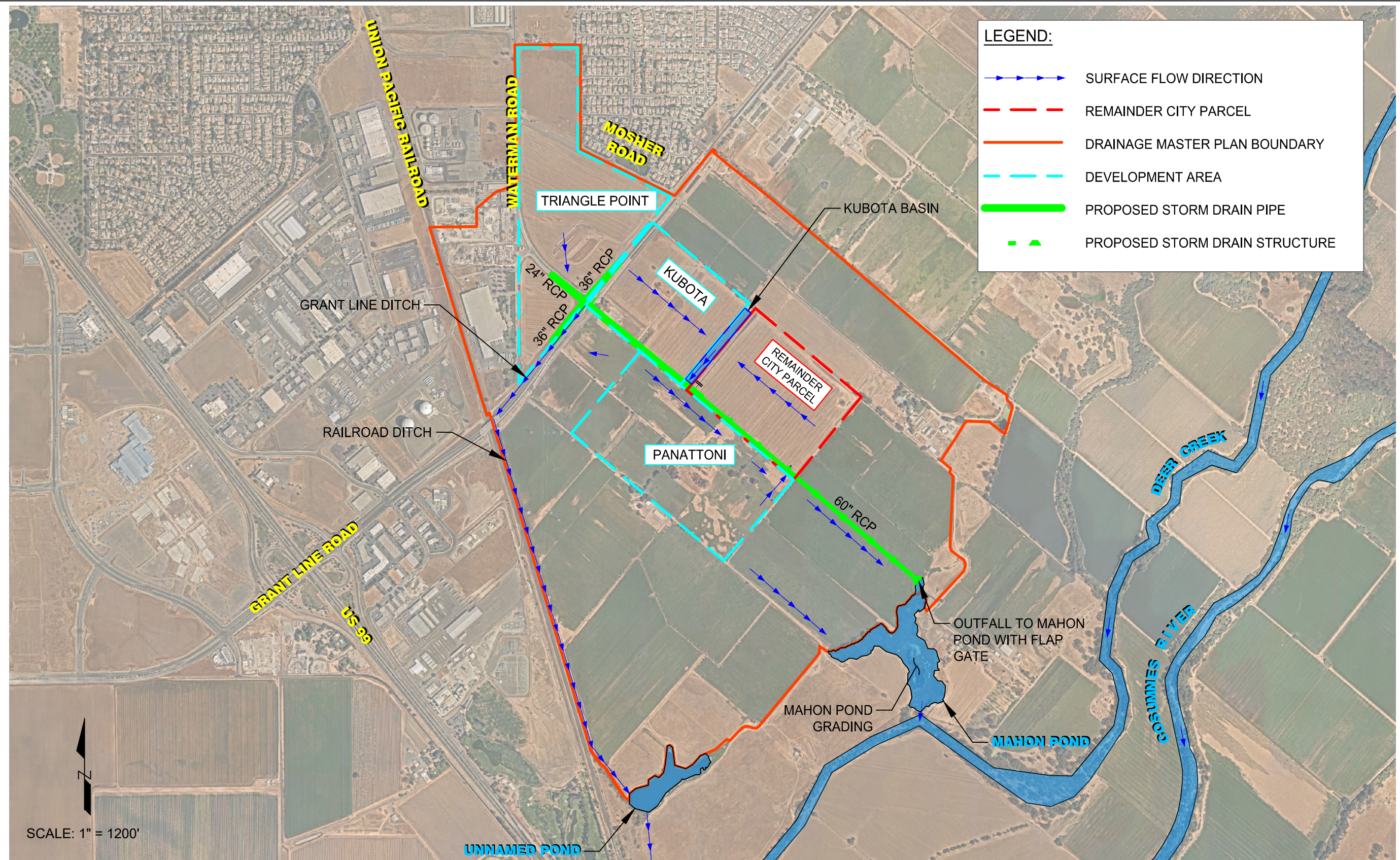
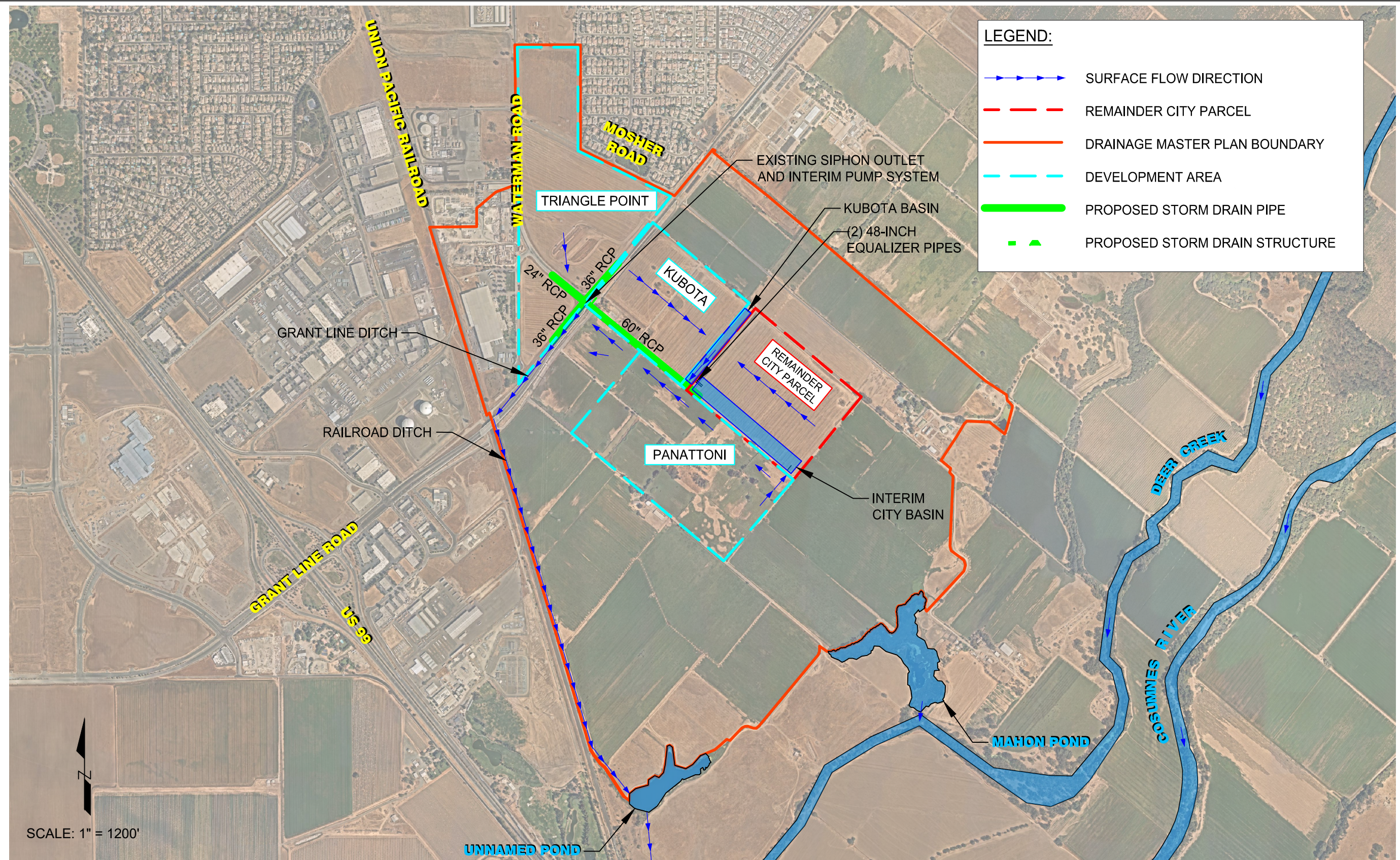


Figure 2 - Ultimate Drainage Facilities and Patterns



2. EXISTING CONDITION

2.1 Land Uses

The project is located near the intersection of GLR and Waterman Road in the City of Elk Grove. The surrounding land in the project site consists of mostly agricultural properties with a few single residence homes and undeveloped land. Deer Creek and the Cosumnes River are located south of the project site. The land in the surrounding area is primarily covered with grasses and supports a few small shrubs and trees.

2.2 Soils, Infiltration Rates, and Groundwater

Geocon conducted a geotechnical investigation for the Panattoni site that analyzed the soil of the surrounding area in April 2021. Six borings and fifteen test pits were analyzed. Based on the preliminary geotechnical report prepared by Geocon, the soil samples primarily were found to consist of lean clays, fat clays, and silt. The project area is representative of hydrologic soil groups C and D, which are characterized by high runoff potential and low infiltration and water transmission rates.

Geocon also performed twelve additional borings on the City parcel to verify infiltration rates. Ten of the twelve test results showed infiltration rates between 0.00 and 1.75 inches per hour. Two tests taken at depths of 9 to 11 feet and 12.5 to 14.5 feet resulted in infiltration rates between 22.67 and 80.10 inches per hour. The two tests resulting in high infiltration rates were considered to be anomalies and the site was characterized as having little to no infiltration capabilities.

The California Department of Water resources (DWR) database indicates that the nearest well to the project site, Well 06N06E16E001M, has had an average groundwater depth of 65.9 feet from 1989 to 2017. Groundwater flow direction is expected to be locally variable based upon specific topography, drainage patterns, and geologic conditions.

2.3 Flooding

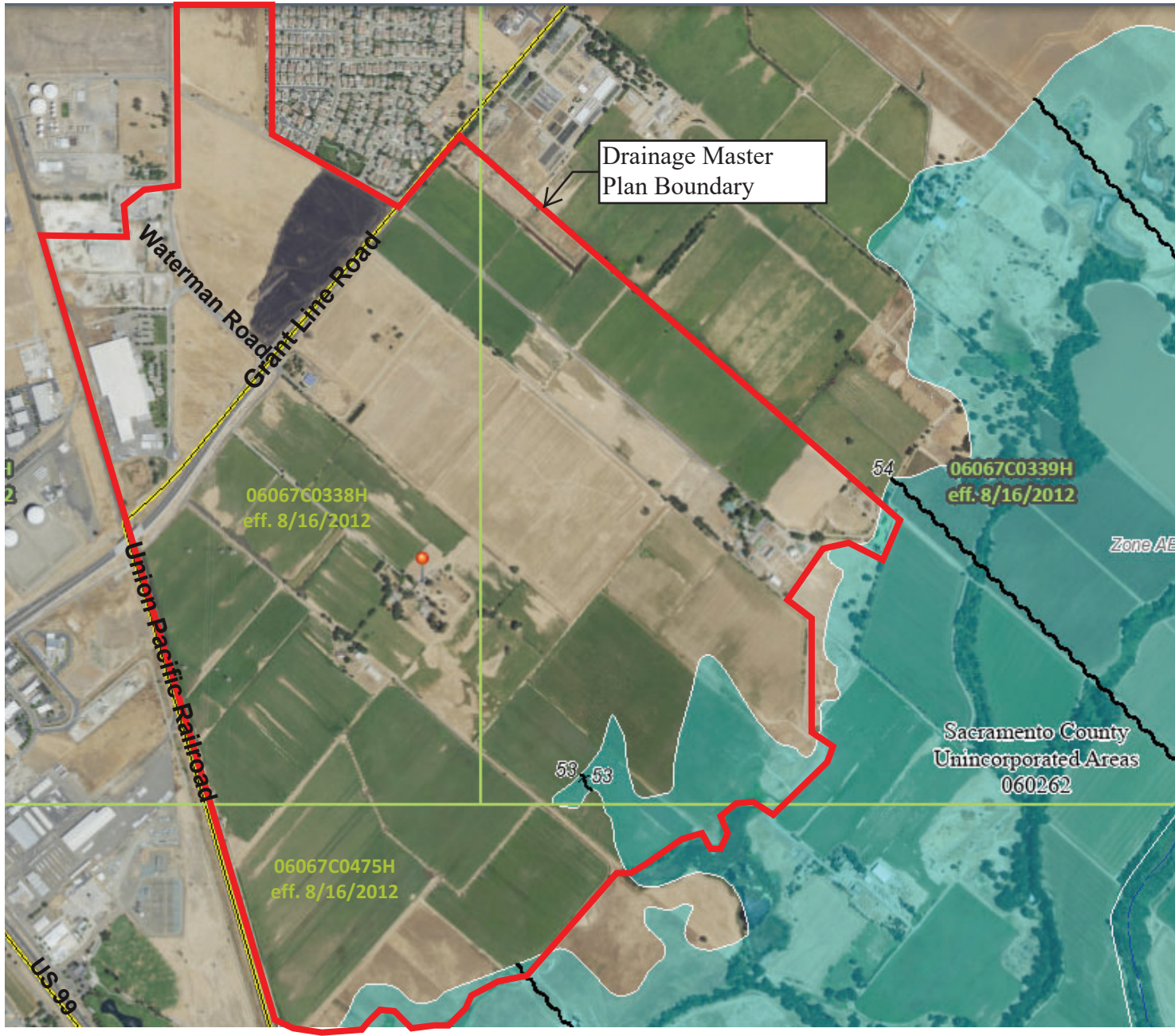
As illustrated in the FEMA Flood Insurance Rate Maps (FIRM) #06067C0339H and #06067C0475H, the project is located in areas designated as Zones AE and X. Zone AE is defined as a 100-year floodplain area with based flood elevations determined. Zone X is defined as an area of minimal flooding hazard. The northern portion of the project site is not located within the 100-year floodplain, but the southern portion of the project including Mahon Pond is located within the 100-year floodplain. The sources of flooding are the adjacent Cosumnes River and Deer Creek. See **Figure 4** for the FEMA FIRM.

2.4 Watersheds, Drainage Patterns, and Drainage Facilities

The SEIA consists of three major watersheds including the Mosher, Grant Line, and Mahon Watersheds as described in the DMP. Each watershed generally drains south as overland flow to Deer Creek.

Runoff generated in the Mahon watershed, which is the focus of this memorandum, drains from north to south as overland flow to the Mahon Pond. The existing surrounding land is relatively flat with elevations ranging from 45 feet to 55 feet. Mahon Pond is approximately 8 feet deep with a bottom elevation of 39 feet and a top elevation of 47 feet (NAVD88). The Mahon Pond discharges to Deer Creek through a 36-inch culvert and secondarily via weir in high flow conditions.

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation 17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		PROJECT AREA

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/15/2021 at 5:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

FIGURE 4 - FEMA Firmette

The existing Grant Line watershed is generally located northwest and west of the Mahon watershed. Runoff generated in the Grant Line watershed drains to the southwest in ditches that parallel GLR. These ditches then angle to the south paralleling the Union Pacific Railroad before discharging to an unnamed pond. Runoff that leaves the unnamed pond flows directly into Deer Creek.

See **Figure 5** for an exhibit showing the SEIA existing drainage patterns.

3. INTERIM CONDITION

3.1 Land Uses

In the interim condition, the Panattoni and Kubota sites would be fully developed as light industrial land use areas. The Triangle Point site will be a mix of light industrial and medium-density residential land uses. The remainder of the City parcel has also been assumed to be developed as a light industrial land use area. The remainder of the SEIA would remain undeveloped.

3.2 Watersheds, Drainage Patterns, and Drainage Facilities

The interim condition watersheds and overall drainage patterns would remain similar to the existing condition. Only a small portion of the Mahon watershed that overlaps with the Panattoni site would be diverted to the Grant Line watershed. The interim storm drain facilities, should they be needed, include a segment of the City's storm drain trunkline spanning from GLR to the Panattoni site outfall, an interim City basin adjacent to the Kubota basin connected by equalizer pipes, and an interim pump system to discharge runoff generated at the developed sites to the GLR ditch.

The Mahon and Mosher watersheds would remain generally unchanged in the interim condition.

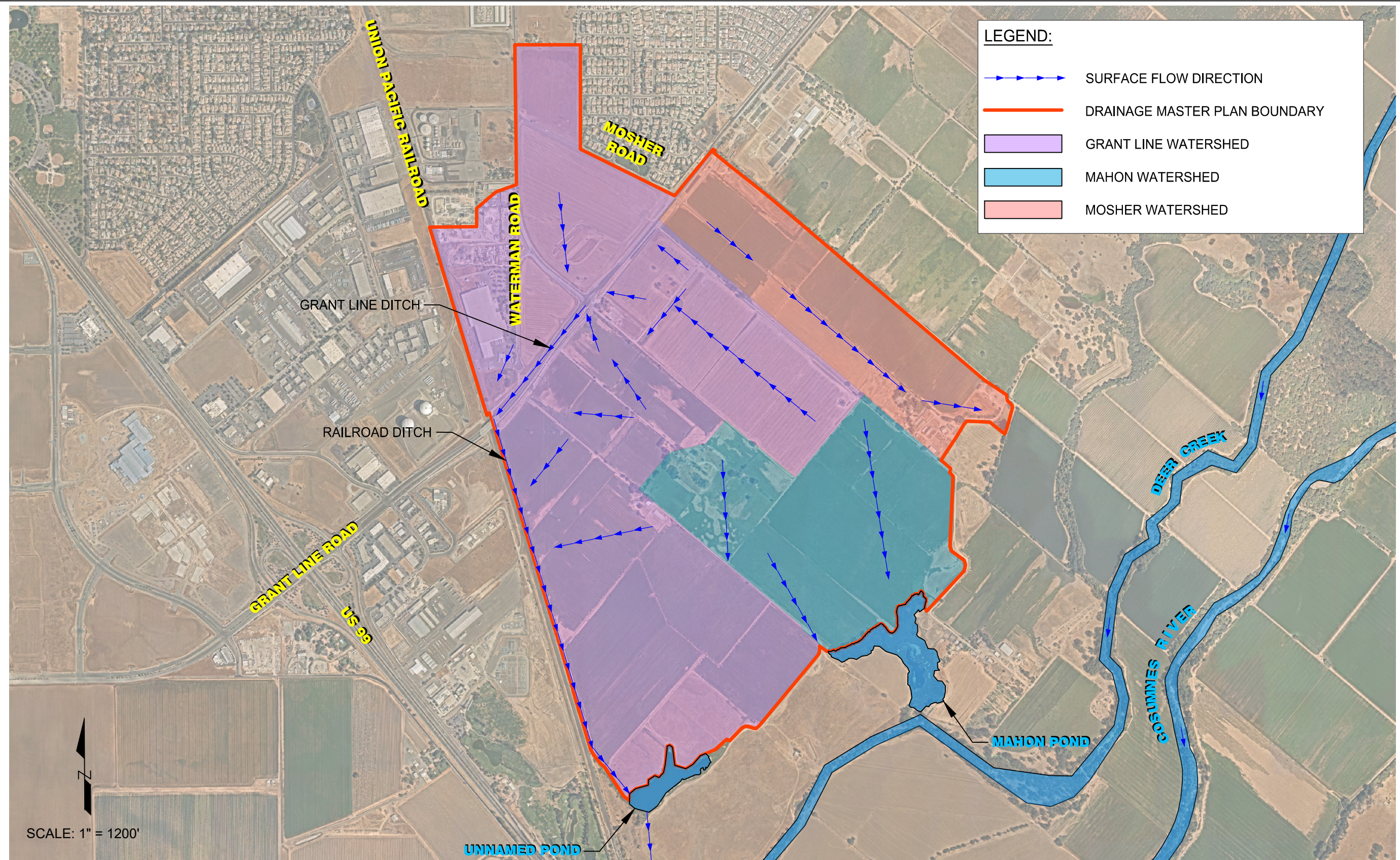
4. ULTIMATE CONDITION

4.1 Land Uses

In the ultimate condition, the Panattoni, Kubota, and remainder City parcel sites would be fully developed as light industrial land use areas. The Triangle Point site will be a mix of light industrial and medium-density residential land uses. The remainder of the SEIA would be developed consistent with the DMP, including a mix of public right-of-way, heavy industrial, light industrial, mixed use, parks and open space, and regional commercial.

4.2 Watersheds, Drainage Patterns, and Drainage Facilities

The ultimate condition drainage patterns are generally consistent with Alternative C of the DMP with the exception that two areas planned as part of the proposed Grant Line watershed in the DMP will be shifted into the Mahon watershed. The two areas that will be shifted into the Mahon watershed include the Panattoni site and the portion of the Triangle Point site west of Waterman Road.



Runoff generated in the Mahon watershed will flow southeasterly to the Mahon Pond via two main drainage pathways.

1. Runoff generated by the majority of the Mahon watershed, including the initial developer sites, will drain through a 60-inch storm drain trunkline, which will outfall to Mahon Pond.
2. Runoff generated by a parcel northwest of the Mahon Pond will drain through a separate storm drain system and discharge at a separate outfall location to the Mahon Pond.

The 60-inch storm drain trunkline will span from GLR to the Mahon Pond with connections from the Kubota and Panattoni developers. The trunkline will be aligned from the intersection of GLR and Waterman Road to the southwest in a generally straight path to the Mahon Pond outfall. Due to the Mahon Pond being located in the FEMA Zone AE area with relatively high base flood elevations, the 60-inch outfall will require a flap gate to prevent backflow and flooding of the upstream developments.

Due to the existing grades of the Mahon Pond, minor grading is required to extend the bottom of the pond to the trunkline outfall location. The owner of the Mahon Pond and the City have expressed interest in grading and/or dredging the pond. The extent of the grading is currently being determined and is discussed in more detail in Section 6.

See **Figure 6** for an exhibit showing the SEIA ultimate watersheds.

5. HYDROLOGIC ANALYSIS

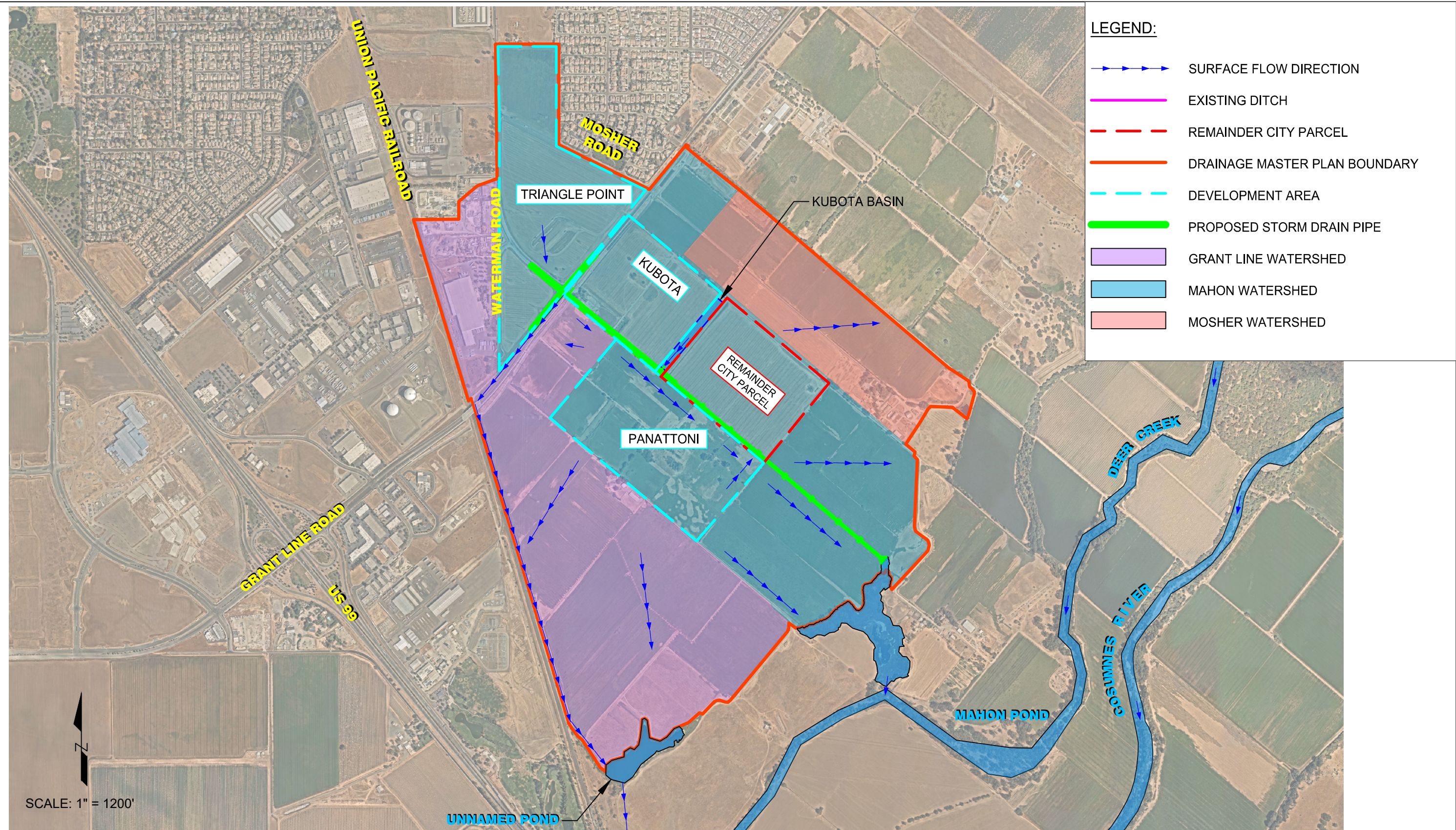
The hydrologic analysis was performed using Innovyze's XP SWMM software based on the Sacramento Method consistent with the DMP and the Sacramento City/County Drainage Manual. The DMP XP SWMM models served as the baseline models, which were revised to reflect the current plans including the DMP Alternative C City parcel land use and flow diversions of the Triangle Point and Panattoni developments. The revised XP SWMM model is referred to as the Master Model since it incorporates the City's and the developer's improvements into a single model.

5.1 Criteria

The DMP provided a baseline approved preliminary design with specific peak flow discharge limitations to Deer Creek. The project has the potential to increase peak flows discharged to Deer Creek from the Grant Line watershed in the interim condition and the Mahon watershed in the ultimate conditions. Based on the DMP, the Grant Line and Mahon watershed maximum allowable discharge rates to Deer Creek are 235 cfs and 85 cfs, respectively.

5.2 Developer's Hydrology

The Sacramento Method hydrologic analysis of the SEIA initial developments was performed by each respective developer. The City provided the developer models and approved their use to incorporate the developers hydrology into the Master Model. The developer hydrology was incorporated into the Master Model in the form of flow hydrographs at their respective points of connection to the City's storm drain trunkline.



The Triangle Point/Kubota flow hydrograph was entered at the City's proposed manhole adjacent to the Kubota basin, which includes runoff from areas along GLR and the light industrial remainder of the City parcel. The Panattoni flow hydrograph was entered at the City's proposed manhole adjacent to the Panattoni basin located in the east corner of their development, which includes runoff solely from the Panattoni site.

5.3 Hydrology for Additional Contributing Areas

The hydrologic analysis for the remaining areas of the Mahon Watershed was performed based on the original DMP XP SWMM models, with the following exception:

The DMP assumed that the runoff generated in the area southeast of the City parcel would drain to a proposed Basin B, which would discharge into the City's storm drain trunkline. The City indicated that this parcel may remain undeveloped for the foreseeable future and requested alternative analyses that included the removal of the basin from the Master Model.

5.4 Storm Frequencies

Interim and ultimate condition peak flows were developed for the following frequencies and purposes in accordance with the City's Improvement Standards and the City/County Drainage Design Manual:

- 10-year, 24-hour: 10-year flows were developed for the purpose of designing drainage facilities to satisfy all City hydraulic criteria. Based on the proposed improvements, the primary hydraulic criteria includes hydraulic grade line (HGL) requirements at manholes and minimum pipe flow velocities to provide a self-cleansing condition. 10-year flows were also developed to evaluate how the interim basins and storm drain systems would behave based on successive storm events.
- 100-year, 24-hour: 100-year flows were developed to confirm the project results in acceptable flooding extents and maximum water surface elevations. 100-year flows were also developed to confirm the project peak flows discharged to Deer Creek will not exceed the allowable discharge rates determined in the DMP.

5.5 Flow Diversions

The hydrology and runoff routing developed for the ultimate analysis were identical to the DMP with the exception of two flow diversions. Two areas planned as part of the proposed Grant Line watershed in the DMP were shifted into the Mahon watershed, including the Panattoni site and the portion of the Triangle Point west of Waterman Road. The flow diversions have the potential to increase peak flows discharged to Deer Creek. The XP SWMM model that developed the ultimate condition hydrology, routed the runoff through the Mahon Pond and its outfall to Deer Creek. The Mahon Pond and its outfall attenuate peak flows, mitigating the effects of the flow diversions.

5.6 Results

Results of the hydrologic analysis indicate that the interim and ultimate condition peak flows discharged to Deer Creek will not exceed the allowable discharge rates determined in the DMP. Table 1 below provides a summary of the interim and ultimate peak flows discharged to Deer Creek:

Table 1 –100-Year Peak Flows Discharged to Deer Creek

Condition Analyzed	Calculated Peak Flow (cfs)		Maximum Permissible Peak Flow (cfs)		Satisfies Criteria
	Grant Line Watershed	Mahon Watershed	Grant Line Watershed	Mahon Watershed	
Interim	64.6	No Impact	235	No Impact	Yes
Ultimate Alternative 1	No Impact	74.4	No Impact	85.0	Yes
Ultimate Alternative 2	No Impact	82.0	No Impact	85.0	Yes
Ultimate Alternative 3	No Impact	82.0	No Impact	85.0	Yes

6. HYDRAULIC ANALYSIS

The proposed on-site drainage facilities have been designed to convey runoff from the planned development of the Mahon Watershed to Deer Creek in accordance with the City’s Improvement Standards and the Sacramento City/County Drainage Manual. The hydraulic design analyses were performed using Innowyze’s XP SWMM software. The following sections discuss the specific criteria and assumptions that were used and how each of the drainage facilities were analyzed and designed.

6.1 Criteria & Assumptions

The City’s Improvement Standards served as the primary design guidance and were supplemented by the Sacramento City/County Drainage Design Manual as necessary. The DMP provided a baseline approved preliminary design with specific drainage limitations, which was superseded based on detailed site investigations, research of available studies, and direction provided by the City. The proposed storm drain system was designed to satisfy the following criteria:

- The maximum allowable 10-year hydraulic grade line elevation shall be 1-foot below the rim elevation at manholes based on a 10-year tailwater condition.
- Minor losses were calculated based on City Standards Method 1, which uses conservative Manning’s “n” values to account for minor losses. The only exceptions to the use of Method 1 were the analysis of the Mahon Pond outlet and equalizer culverts, which used City Standards Method 2 for Manning’s “n” values and City Improvement Standards Table 9-3 to account for the entrance and exit losses.
- The minimum inside diameter for City storm drain pipes shall be 12-inch diameter.
- Interim pipes that will be removed during the ultimate construction were assumed to be High Density Polyethylene (HDPE). Proposed pipes that are part of the ultimate drainage configuration were assumed to be reinforced concrete pipe (RCP).
- The minimum cover for reinforced concrete pipe in unpaved areas shall be 1/8th the diameter but not less than 12 inches. The minimum cover for typical reinforced concrete pipe (Classes II and III) in paved areas shall be 1/8th the diameter but not less than 24 inches.
- The minimum full-pipe flow velocity shall be 2 feet per second to ensure a self-cleansing condition.
- Minimum manhole spacing is 600 feet for pipes 36 inches in diameter or greater.

- The 100-year storm analysis shall be based on the 100-year tailwater condition to ensure areas served by a given storm drain system do not result in objectionable water surface elevations or flooding extents.
- 100-Year Water Surface Elevations: Critical locations with specific limitations to water surface elevations include the Mahon Pond and the developer tie-in points along the proposed storm drain trunkline. Water surface elevations exceeding those summarized in Table 2 were considered objectionable based on the potential impacts to the SEIA initial developer’s properties. The maximum allowable water surface elevation at the Mahon Pond was set at 1.5 feet below the approximate ground elevations of adjacent structures based on lidar topographic surveys prepared by the Department of Water Resources in 2007. The maximum allowable water surface elevations at the developer tie-in locations were set equal to their respective top of basin elevations based on their preliminary design plans.

Table 2 – Maximum Allowable Water Surface Elevations (NAVD88)

Kubota Tie-In	Panattoni Tie-In	Mahon Pond
ft	ft	ft
53.4	49.5*	51.5

*The Panattoni preliminary plans provided to date do not reflect their most recent design changes, which involved raising their proposed site elevations. A higher maximum water surface elevation at the Panattoni tie-in may be allowable. Further coordination is required to determine if a higher allowable maximum WSE is appropriate.

6.2 Model Development

The Master Model development involved updating hydraulic elements in addition to the incorporation of the SEIA initial developers’ hydrology.

A topographic survey of the project area was performed in 2021, which provided more detailed grades of the Mahon Pond and identified a 36-inch culvert at the pond outfall. Both of these elements were largely unknown in the development of the DMP and were updated in the Master Model.

The DMP analysis utilized a free-outfall boundary condition at the Mahon watershed outfall to Deer Creek. In order to better represent the effects of the Deer Creek and Cosumnes River, a time-series boundary condition was developed using results from the HEC-RAS model prepared with the *200-Year Floodplain Mapping for Laguna Creek and Deer Creek* study by West Yost in 2015. The time-series boundary condition indicates that the Deer Creek and Cosumnes River do not begin to rise and impact outflow from the Mahon Pond until after the Mahon watershed peak flows have passed.

6.3 Interim Condition Analysis

The interim condition concept analyzed includes the Kubota basin and pump system as currently designed, the ultimate 60-inch storm drain trunkline from GLR to the Panattoni outfall, a 52-acre-foot City basin, an interim 30-inch pipe at the Panattoni trunkline connection that discharges into the City basin, and two 48-inch equalizer pipes connecting the Kubota and City basins.

Interim condition analyses were performed to evaluate how the basins and storm drain systems would behave based on the following conditions:

- 100-year, 24-hour storm occurs when the City basin is initially empty
- 10-year, 24-hour storm occurs when the City basin is initially half full
- 10-year, 24-hour storm occurs when the City basin is initially full

6.3.1 Storm Drain Trunkline (GLR to Panattoni)

In the interim condition, the ultimate storm drain pipe trunkline segments from the intersection of GLR and Waterman Road to the Panattoni connection to the trunkline will be constructed. The storm drain trunkline follows the future Waterman Road extension, which is also referred to as “B” Street in the Draft Multi-Sport Complex and Southeast Industrial Annexation Area Supplemental Environmental Impact Report. This trunkline will be utilized in both the interim and ultimate condition. In the interim condition, it will serve as a hydraulic link connecting the Kubota, Panattoni, and City basins to the interim pump system located along GLR. The required pipe diameters and slopes for the storm drain trunkline were determined as part of the ultimate condition analysis and were verified to work as part of the interim condition.

6.3.2 City Basin & Equalizer Pipes

In order to provide an interim drainage solution for the Panattoni development with minimal impacts to the Kubota interim drainage design, the project will provide a temporary 52-acre-foot retention basin adjacent to the Kubota basin. The Panattoni site would discharge to the City’s temporary basin, which in turn would be connected to the Kubota basin with equalizer pipes. This interim configuration would result in no increase in maximum water surface elevations at the Kubota site and would utilize the current Kubota interim pump system to draw down the basins.

Due to the proposed Panattoni outfall elevation to the storm drain trunkline, the City basin must be graded lower than the Kubota basin. The City basin will be approximately 180 feet wide by 1,600 feet long and 15.5 feet deep on the southeast end near the Panattoni outfall. The basin would include 2:1 slopes down to the bottom of the basin, which would be approximately 100 feet wide. The City basin would be connected to the Kubota basin by two 48-inch equalizer pipes, which were sized to reduce the frequency and duration of large differences in water surface elevations between the two basins.

A hydraulic analysis of the City basin and equalizer pipes as part of the broader interim condition drainage system was performed to determine the required basin grading and equalizer pipe diameters.

6.3.3 Pump Design

The Kubota developer has designed an interim pump system as documented in the *Triangle Point and Kubota WDC – Storm Drainage Interim Pumping Station Conceptual Design Memorandum*. The following is a summary of the interim pump station design as it relates to the interim condition improvements being considered.

The interim pump system will be located next to an existing grated drainage structure at the upstream end of the GLR ditch southwest of the intersection of GLR and Waterman Road. The grated drainage structure acts as a siphon outlet into the GLR ditch for an existing 36-inch underground storm drain system. The interim pump system will draw runoff from the adjacent siphon outlet structure through intake pipes. Based on the invert of the siphon structure compared to the Kubota and City basins, the configuration will allow for the runoff in the hydraulically connected Kubota and City basins to be pumped upgradient through the storm drain trunkline and discharged to the Grant Line ditch. The siphon outlet structure invert is higher than the Kubota and City basin inverts, which prohibits the pumps from fully draining the Kubota and City basins.

Since the soils in the project area exhibit little to no infiltration based on the tests performed, the proposed interim concept would result in a wet basin condition for extended time periods in excess of the City’s 72-hour basin drawdown criteria. The constant ponded depth will be approximately 5.5 feet deep. Given the short duration that the interim conditions are anticipated to be in place, the City has confirmed that an exception to their drawdown criteria would be granted.

The temporary pump system includes two pumps each with a capacity of approximately 2.2 cfs. A third pump will be located on-site or at a nearby City facility for redundancy. The combined pump flow was modeled as a constant flow of 4 cfs to the Grant Line ditch per the developer’s design. The Grant Line ditch has a capacity of approximately 10.5 cfs, which was considered in the development of the Kubota and City interim condition designs. A hydraulic analysis of the interim condition was performed to determine if any changes to the Kubota pump design would be needed.

6.3.4 Alternatives Considered

To accommodate the runoff from the Panattoni site in the interim condition, several alternatives of the interim drainage concept were considered including adjustments to the pump capacity and timing, retention capacity of the City basin, equalizer pipe sizing, and retention capacity of the Kubota basin. Based on City input, adjustments to the City basin capacity were prioritized over adjustments to the Kubota interim condition design. The capacity of the GLR ditch limits the discharge rate from the developments during the interim condition, which limits the flow range considered for the pump system. Existing grades of the GLR ditch coupled with the Kubota pump concept also limited the timing and drawdown ability of the pumps.

Based on input provided by the City, the interim condition alternative analyzed involve the least impact to the Kubota developer interim condition design and results in water surface elevations that can be accommodated by the Panattoni development.

6.3.5 Results

Results of the analysis indicate that the water surface elevations that can be accommodated by the Panattoni development. Table 3 below summarizes the results of the interim analyses:

Table 3 – Interim Hydraulic Analysis Summary

Interim Condition Analyzed	Kubota Tie-In Max WSE	Panattoni Tie-In Max WSE	Peak Flow to GLR Ditch	Basin Drawdown Time	Satisfies Criteria?
	(ft)	(ft)	(cfs)	(days)	
100-Year, 24-Hour Storm Starting with an Empty City Basin	49.0	49.0	4.3	13	Yes
10-Year, 24-Hour Storm Starting with a Half Full City Basin	50.0	50.0*	4.2	16	No*
10-Year, 24-Hour Storm Starting with a Full City Basin	51.3	51.3*	5.1	16	No*

*The Panattoni preliminary plans provided to date do not reflect their most recent design changes where the site was raised. A higher maximum water surface elevation at the Panattoni tie-in may be allowable. Further coordination is required to determine if a higher allowable maximum WSE is appropriate.

The results show that the interim system will provide adequate storage under a single 100-year event. If subsequent storm events occur during the 13-day drawdown period, there is a potential for flooding on the

Panattoni site (see Table 2 footnote). See **Appendix A** for detailed results of the interim condition hydraulic analysis.

6.4 Ultimate Condition Analysis

The Ultimate Condition storm drain system includes the following elements: 6,660 feet of storm drain trunkline (GLR to Mahon Pond), outfall structure, and grading at the Mahon Pond.

6.4.1 Storm Drain Trunkline (GLR to Mahon Pond)

The ultimate condition storm drain trunkline improvements will consist of the 3,160-feet of trunkline constructed for the interim condition (GLR to Panattoni) and a 3,500-foot extension of the storm drain trunkline from the Panattoni tie-in to the Mahon Pond. The trunkline diameter will be 60 inches, based on the preliminary findings from the DMP. Based on the size and length of the storm drain trunkline, eight manholes were assumed along the storm drain trunkline segment between the Panattoni trunkline tie-in to the Mahon Pond. Variations to the storm drain trunkline that were considered in the overall analysis included the use of a 60-inch storm drain trunkline for the entire length of trunkline from the Panattoni tie-in to the Mahon Pond (3,500 feet) and a combination of a 60-inch pipe for 3,200 feet combined with a 300-foot segment 72-inch pipe. Hydraulic analyses of the ultimate storm drain trunkline were performed to determine the required pipe diameters and slopes.

6.4.2 Storm Drain Trunkline Outfall Structure

The storm drain trunkline will outfall to the Mahon Pond with a headwall structure. Since the Mahon Pond is located within the 100-year floodplain, the ultimate storm drain trunkline would provide a conduit for backwater to flood upstream developments during 100-year storm events. Therefore, the ultimate condition analysis assumes a flap gate will be installed at the storm drain trunkline outfall to the Mahon Pond. Based on the size and response of Deer Creek and Cosumnes River watersheds, the peak flood stage is experienced after most runoff generated from the Mahon watershed has drained to Deer Creek. This phenomenon allows the flap gate to remain open during the critical time period when the Mahon watershed is draining and does not require excessive upstream storage when the flap gate is forced closed.

Due to grade limitations, the storm drain outfall invert at the Mahon Pond will be higher than the Mahon Pond culvert outfall invert that controls the minimum pond water surface elevation. As a result, the flap gate will never allow the storm drain trunkline to fully drain after a storm. For this reason, lowering of the pond was considered, although ultimately not recommended to minimize impacts to the existing pond outfall and discharge rates to Deer Creek. Hydraulic analyses of the ultimate condition alternatives were performed to confirm the tailwater conditions would not cause objectionable water surface elevations or flooding extents within the Mahon watershed due to a flap gate-controlled storm drain trunkline outfall.

6.4.3 Pond/Outfall Modifications

Based on the outfall elevation of the storm drain trunkline, minor grading will need to be performed to extend the pond's bottom elevation to the trunkline outfall location for all alternatives analyzed.

Beyond the grading needed at the outfall, the owner of the Mahon Pond has expressed interest in performing pond maintenance in the form of dredging. This maintenance would be conducted separately from the project, but exact depths of dredging are unknown. For the purposes of this analysis the alternatives considered included no maintenance dredging and maintenance dredging of 1.5 feet. In all cases, the existing pond outfall to Deer Creek is maintained in its existing condition.

6.4.4 Alternatives Considered

Several alternatives of the ultimate drainage concept were considered including adjustments to the storm drain slope and diameter, the outfall location and the maintenance dredging at the Mahon Pond. The inclusion and exclusion of a few key ultimate condition drainage components was also considered including Basin B as described in the DMP, a flap gate at the Mahon Pond outfall, and the Triangle Point and Panattoni flow diversions. Dozens of alternative combinations of these factors were considered to optimize the hydraulic conditions at the Mahon Pond, storm drain trunkline, and upstream developments.

The number of alternatives under consideration has been narrowed down to three based on input from the City. These three alternatives are described as follows:

1. Alternative 1 – No maintenance dredging of the pond and a segment of 72-inch pipe at the trunkline outfall equipped with a flap gate.
2. Alternative 2 – Same as Alternative 1 except that the Mahon Pond will be dredged 1.5 feet deeper
3. Alternative 3 – Same as Alternative 1 except that the Mahon Pond will be dredged 1.5 feet deeper and the entire storm drain trunkline will be 60 inches in diameter.

Ultimate condition analyses were performed assuming an initial condition where the Mahon Pond is full of water up to the pond’s culvert outlet invert elevation.

6.4.5 Results

Results of the analysis indicates that three preferred alternatives satisfy City criteria and the goals of the project. Table 4 below summarizes the results of the ultimate condition analysis of the preferred alternatives:

Table 4 – Ultimate Hydraulic Analysis Summary

Alternative	Pond Grading	Pond Outfall	Storm Drain Trunkline	Includes Flow from Basin B	Kubota Tie-In Max WSE	Panattoni Tie-in Max WSE	Mahon Pond Max WSE	Satisfies Criteria?
					ft	ft	ft	
1	No Change	No Change	60"/72"	Yes	51.3	49.5	45.5	Yes
2	1.5' Lower	No Change	60"/72"	No	50.8	48.9	45.6	Yes
3	1.5' Lower	No Change	60"	No	51.3	49.5	45.5	Yes

See **Appendix B** for detailed results of the ultimate condition hydraulic analysis.

7. CONCLUSIONS & RECOMMENDATIONS

The recommended interim condition improvements include a 60-inch storm drain trunkline from GLR to the Panattoni tie-in, a 52-acre-foot City basin, two 48-inch equalizer pipes to connect the City and Kubota basins, and a 30-inch outfall pipe from the Panattoni tie-in to the City basin. No changes are required of the Kubota site or pump system designs. Coordination with the SEIA initial developers will allow the City to evaluate the risks associated with the condition where a significant storm is experienced when the City basin has residual water from previous storms.

The recommended ultimate condition improvements include a 60-inch storm drain trunkline that increases to a 72-inch pipe along the downstream 300-foot segment. The 72-inch outfall is recommended with a flap gate to prevent backflow and flooding of the upstream developments when the Cosumnes River and Deer Creek experience extreme storm events. Although the City intends to dredge the Mahon Pond, the Pond's outfall does not require modifications.

Further coordination with the initial private developers is required to confirm the recommended improvements can accommodate their current designs due to the assumptions described in Section 6.1 of this memorandum.

8. INTERIM & ULTIMATE PRELIMINARY COST ESTIMATES

Preliminary cost estimates were developed for the interim and ultimate conditions. The total cost for the interim condition improvements is approximately \$900,000. The total cost for the ultimate condition improvements ranges between approximately \$4,000,000 and \$4,200,000 for the three alternatives analyzed. See **Appendix C** for the detailed breakdown of the preliminary cost estimate.

9. REFERENCES

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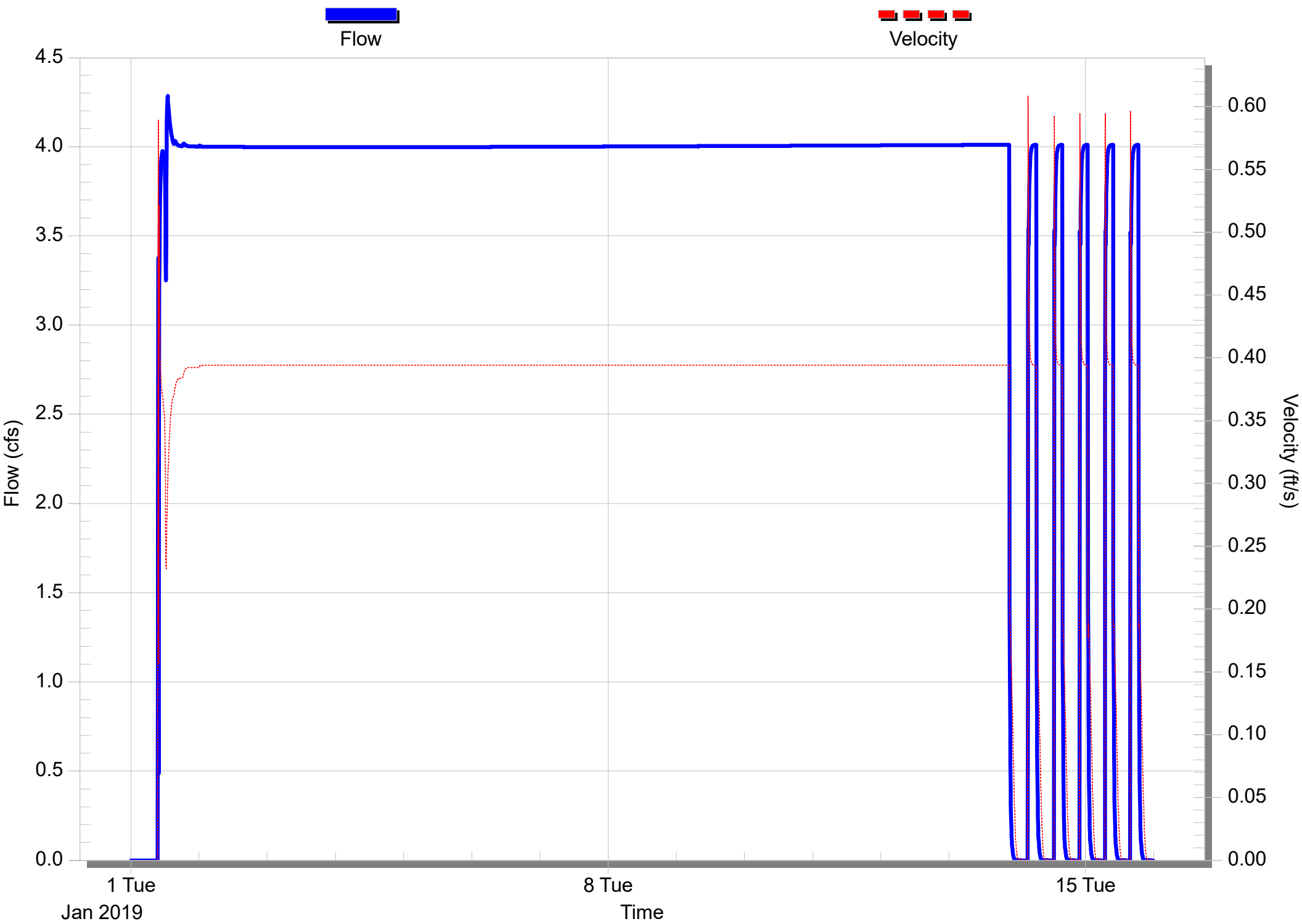
APPENDIX A

Interim Hydraulic Analysis

**100-Year, 24-Hour Storm
Starting with an Empty City Basin**

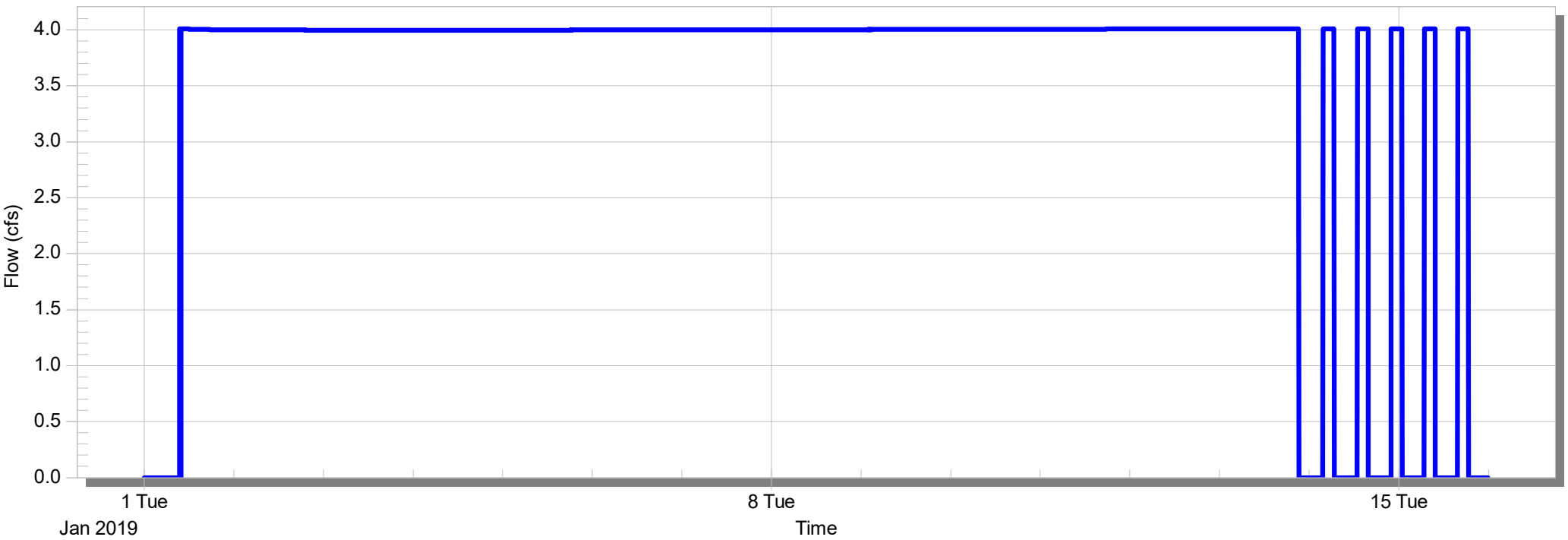
Conduit Grant Line Rd Ditch from DC040 to DC037

[Max Flow = 4.2836][Max Velocity = 0.61]



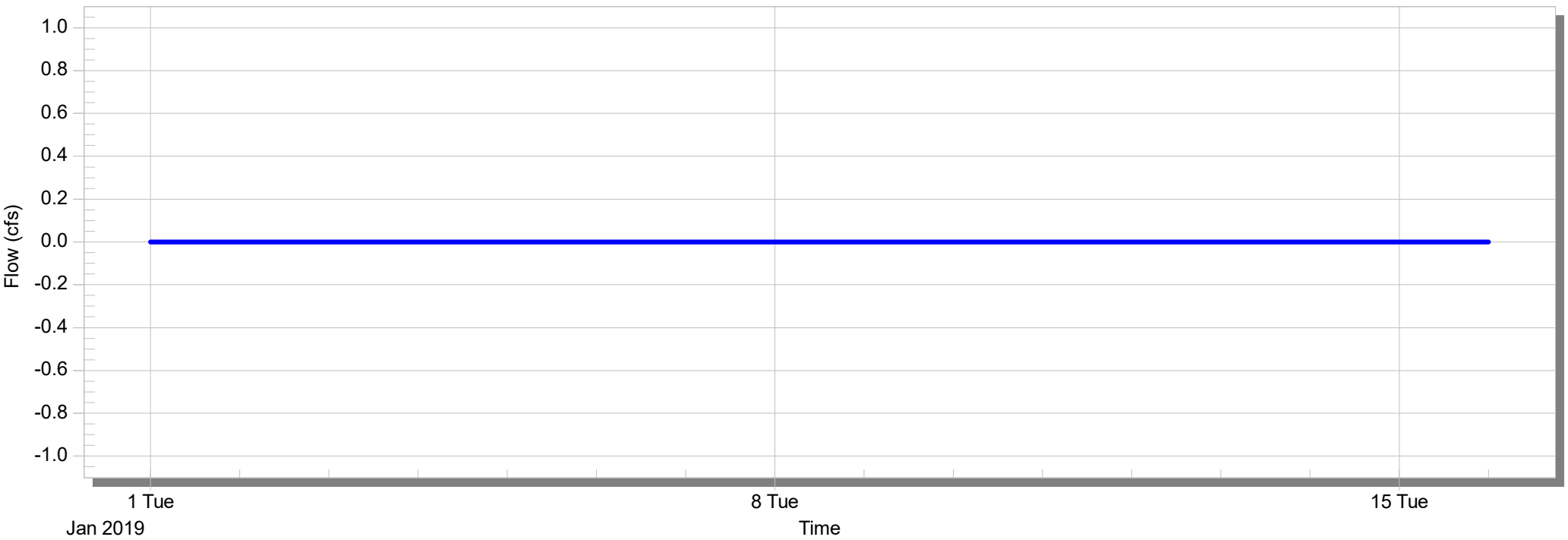
Diversion Interim Pump System.1 from Tri Point & GLR Hydrograph at GLR MH to DC040

[Max Flow = 4.0100]



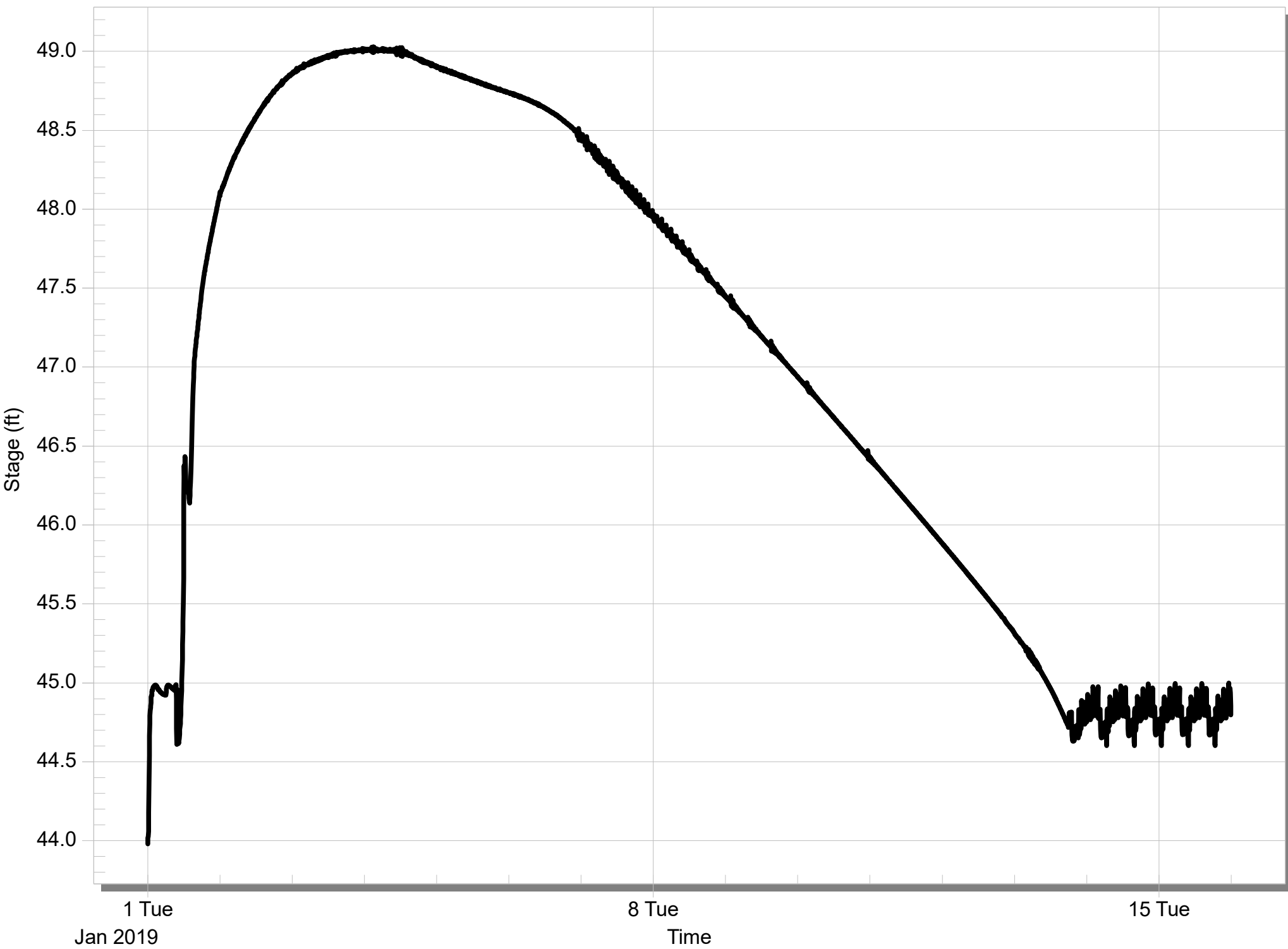
Diversion Siphon Outlet.2 from Tri Point & GLR Hydrograph at GLR MH to DC040

[Max Flow = 0.0000]



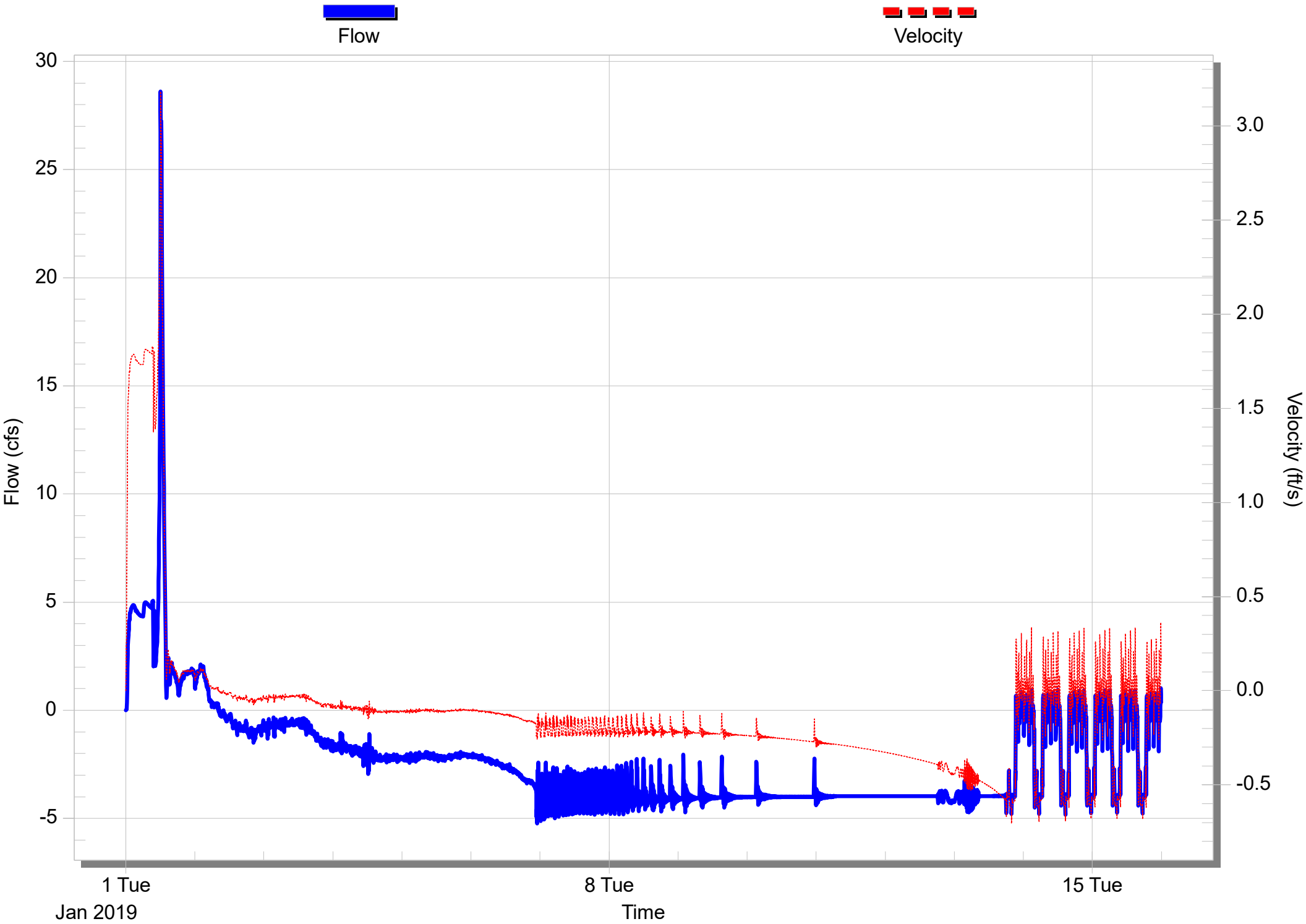
Node - Tri Point & GLR Hydrograph at GLR MH

[Max Stage = 49.029]



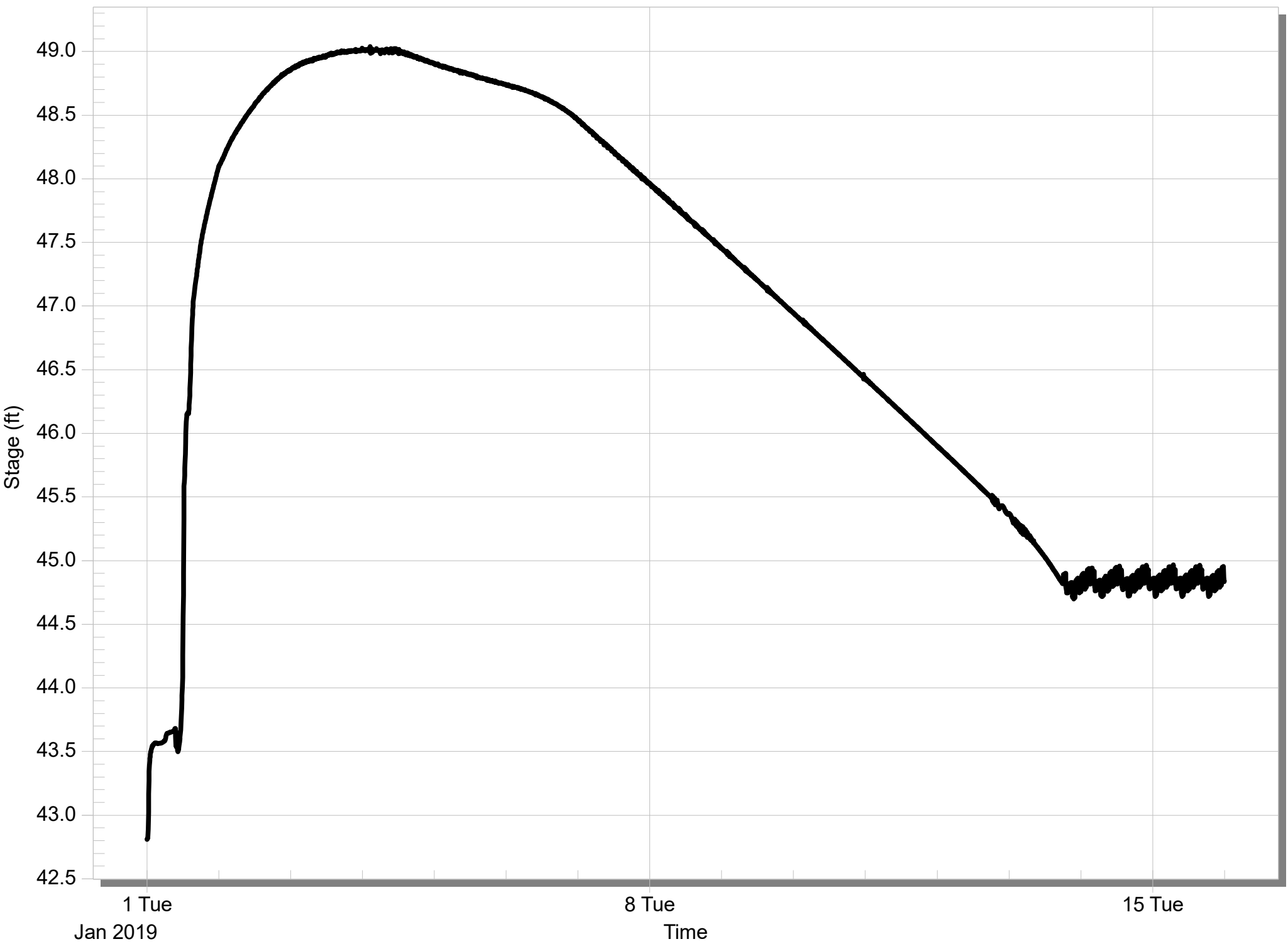
Conduit 60-In SD Pipe 1 from Tri Point & GLR Hydrograph at GLR MH to Kubota Tie-In MH

[Max Flow = 28.6094][Max Velocity = 3.18]



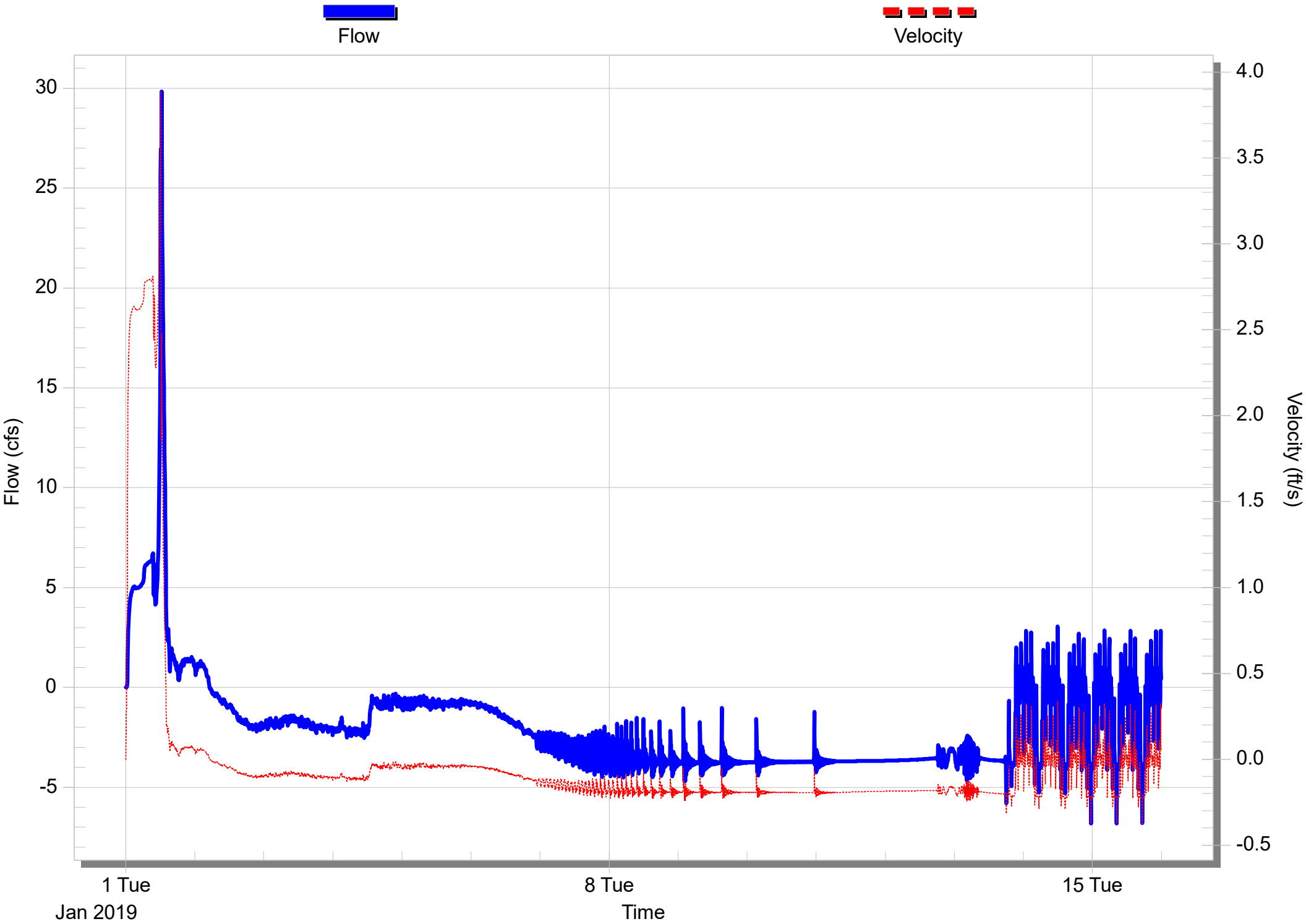
Node - Kubota Tie-In MH

[Max Stage = 49.039]



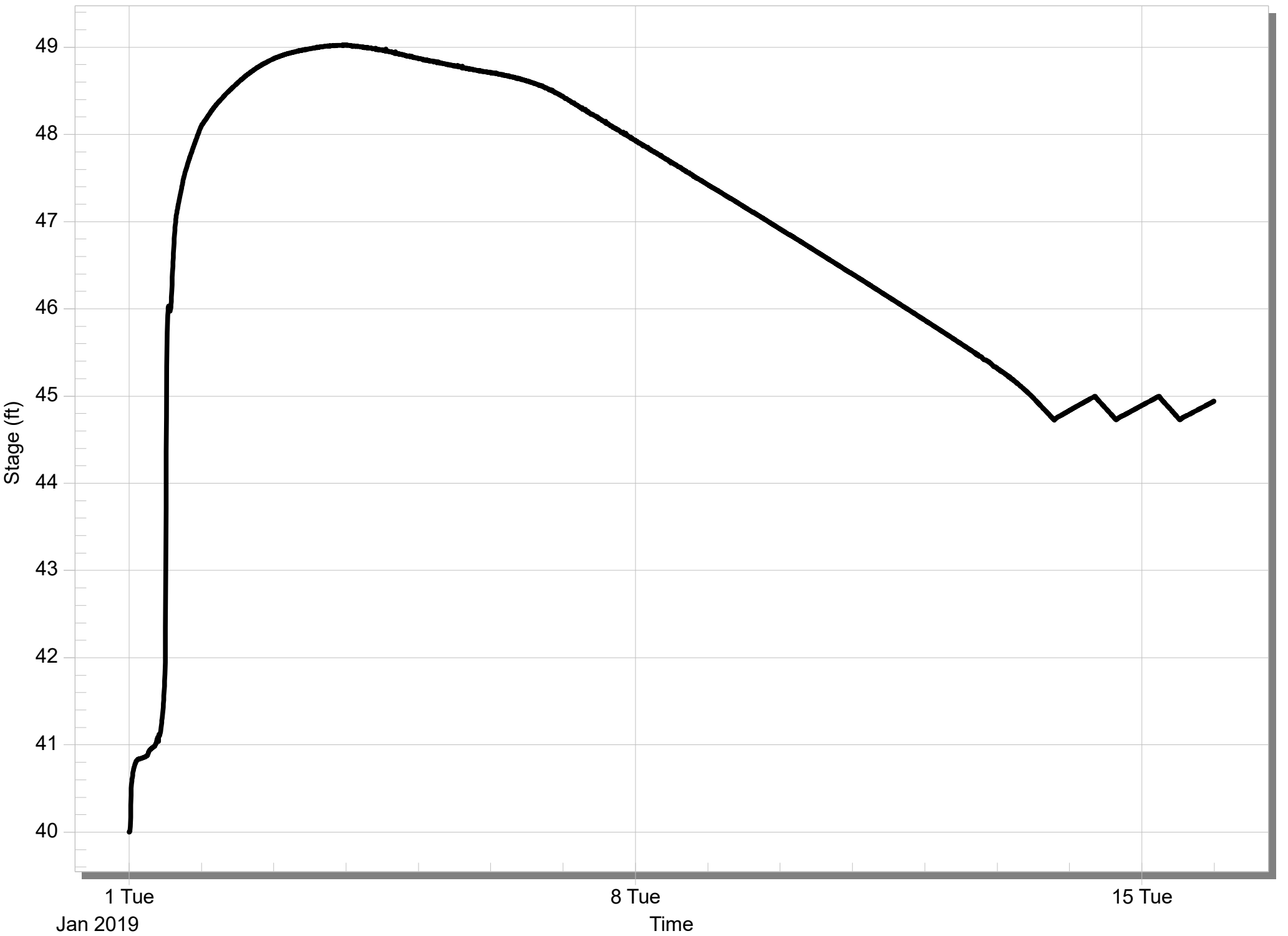
Conduit 60-In SD Pipe 2 from Kubota Tie-In MH to Panattoni Tie-In MH

[Max Flow = 29.8359][Max Velocity = 3.89]



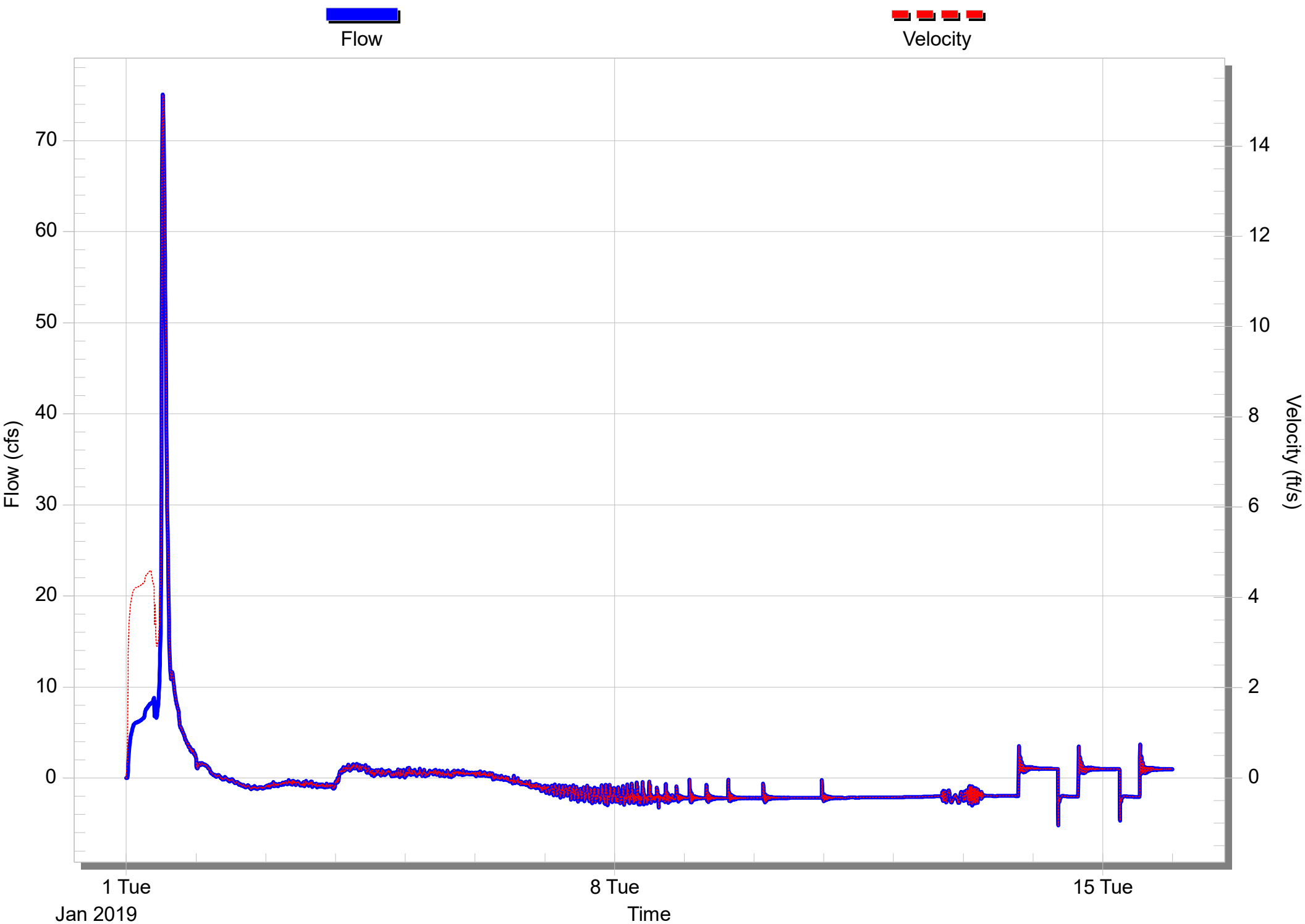
Node - Panattoni Tie-In MH

[Max Stage = 49.025]



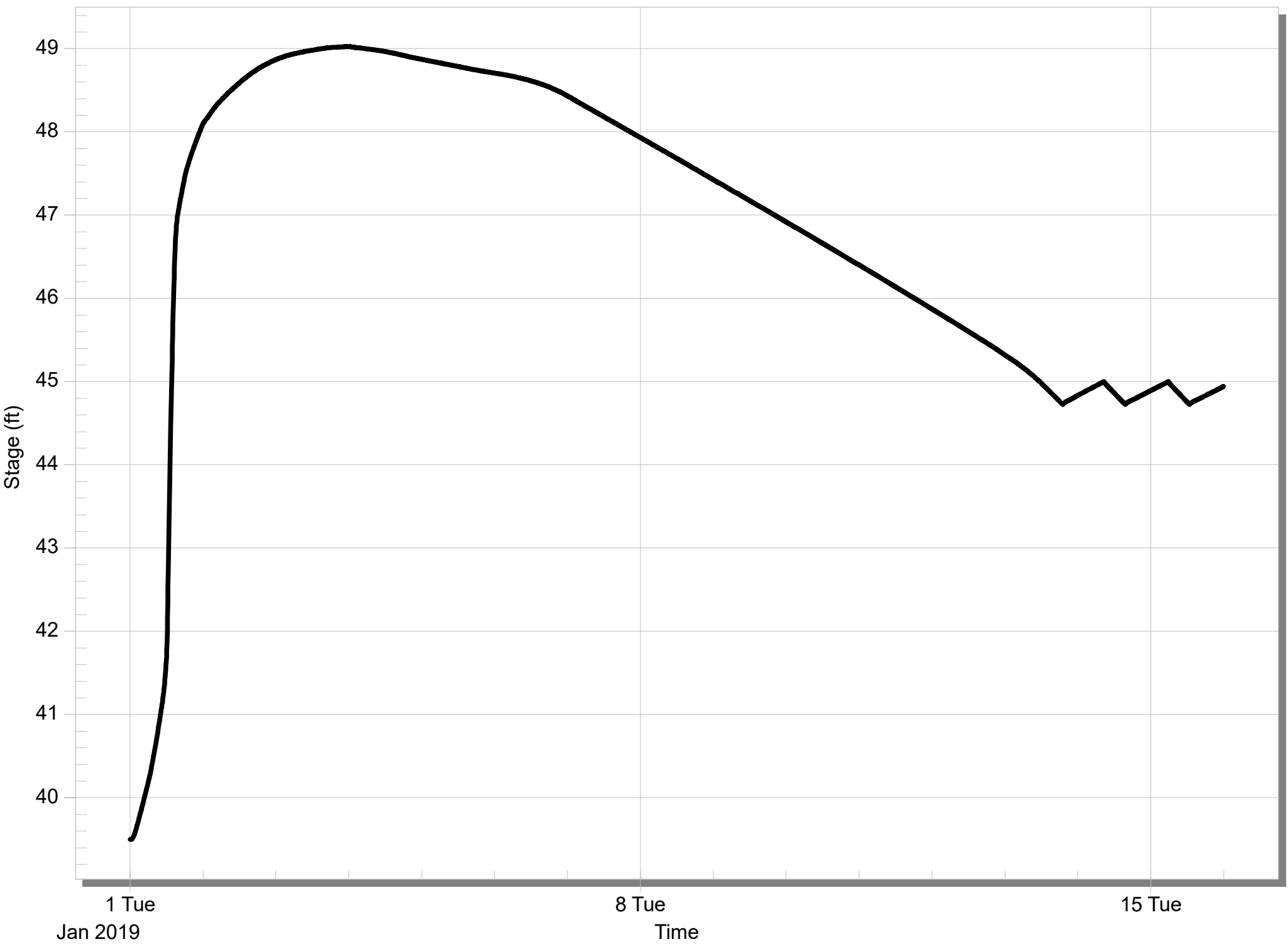
Conduit Interim 30-In SD from Panattoni Tie-In MH to Interim City Basin

[Max Flow = 75.0653][Max Velocity = 15.14]



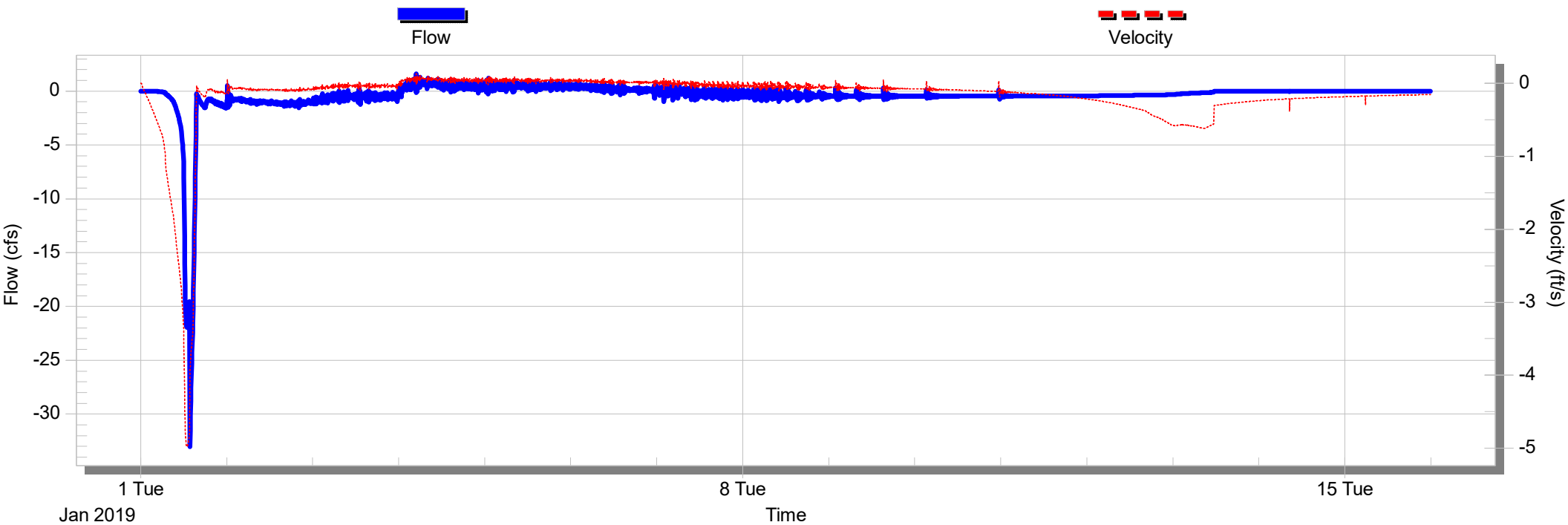
Node - Interim City Basin

[Max Stage = 49.026]



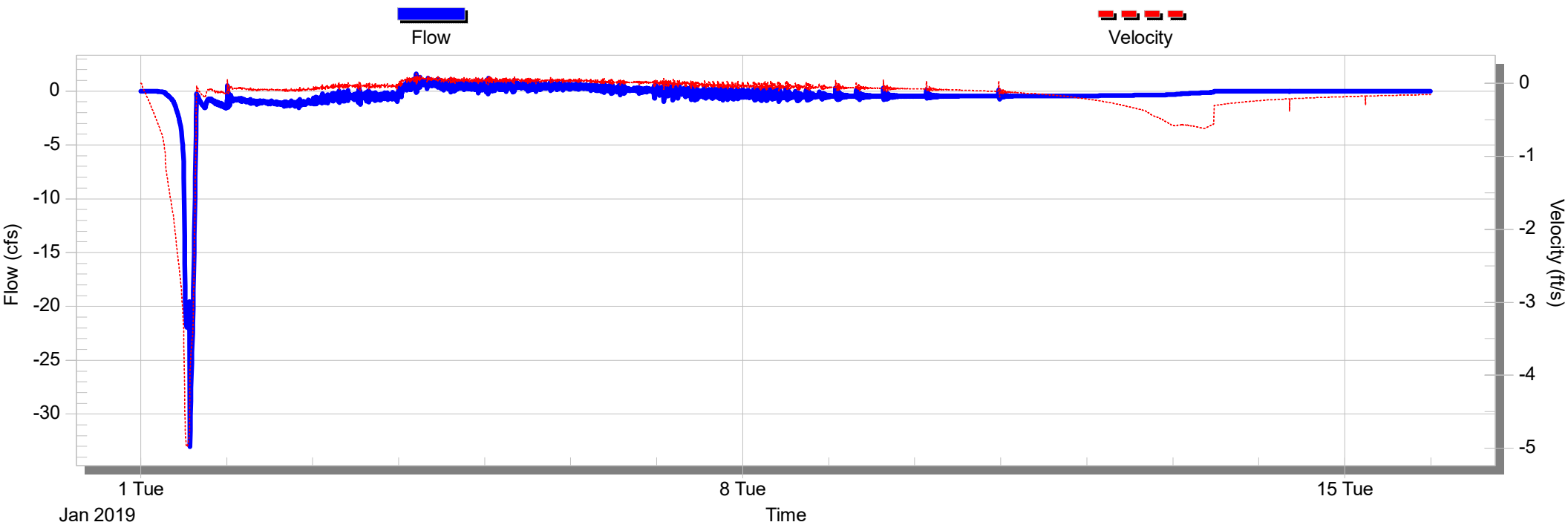
Conduit 48-In Equalizer SD 1 from Interim City Basin to Kubota Basin

[Max Flow = -33.0355][Max Velocity = -4.98]



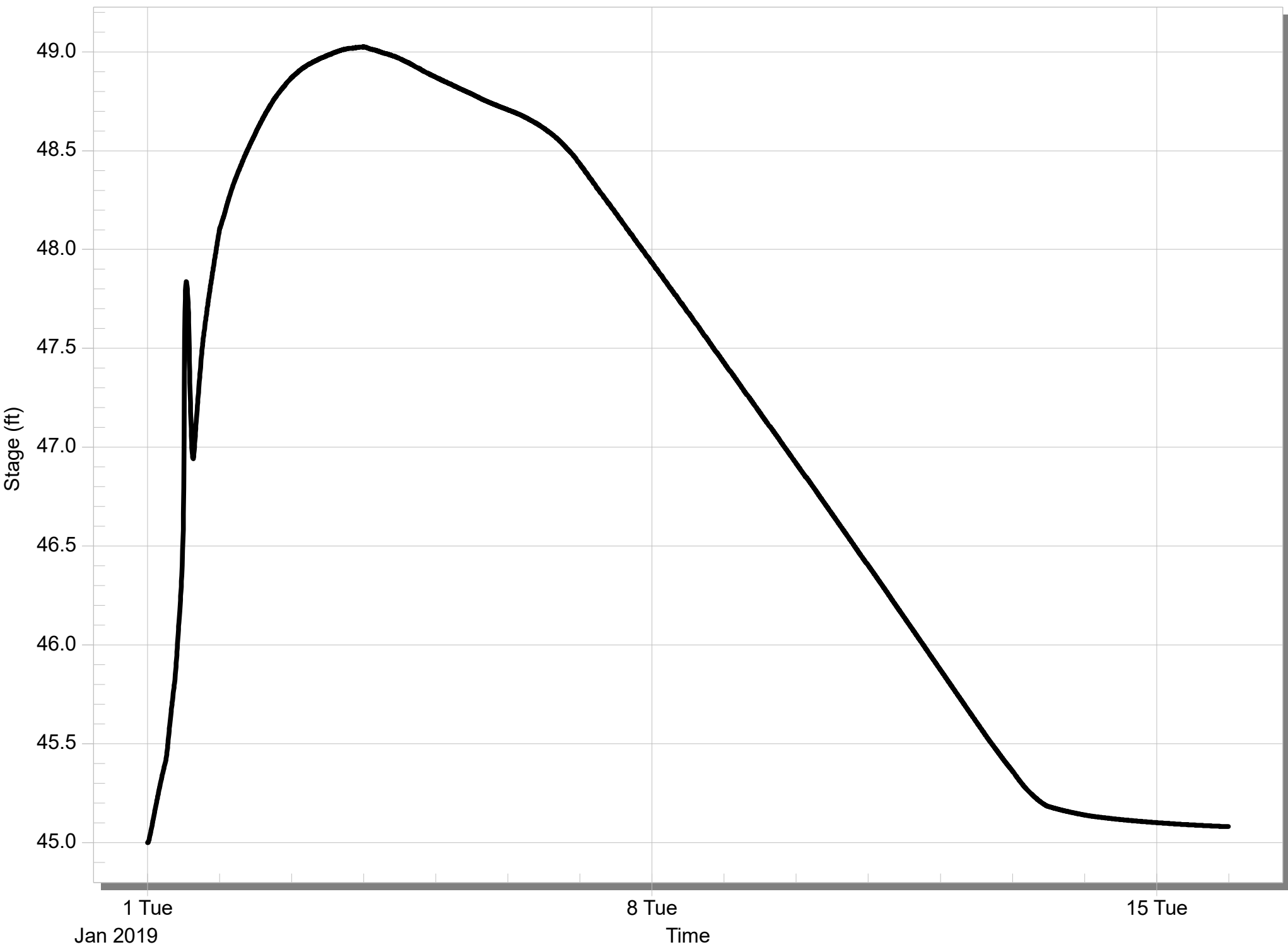
Conduit 48-In Equalizer SD 2 from Interim City Basin to Kubota Basin

[Max Flow = -33.0355][Max Velocity = -4.98]



Node - Kubota Basin

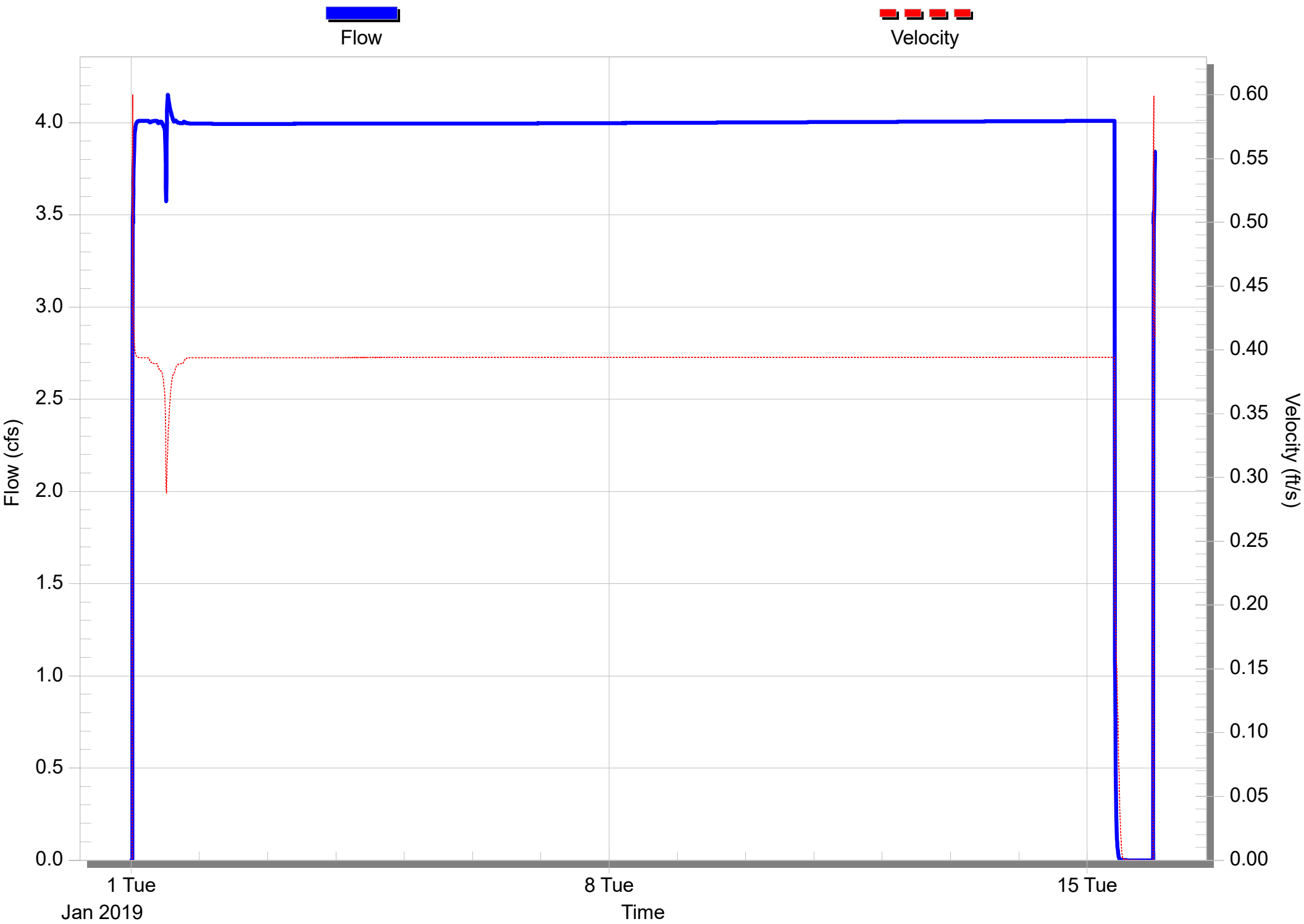
[Max Stage = 49.026]



**10-Year, 24-Hour Storm
Starting with a Half Full City Basin**

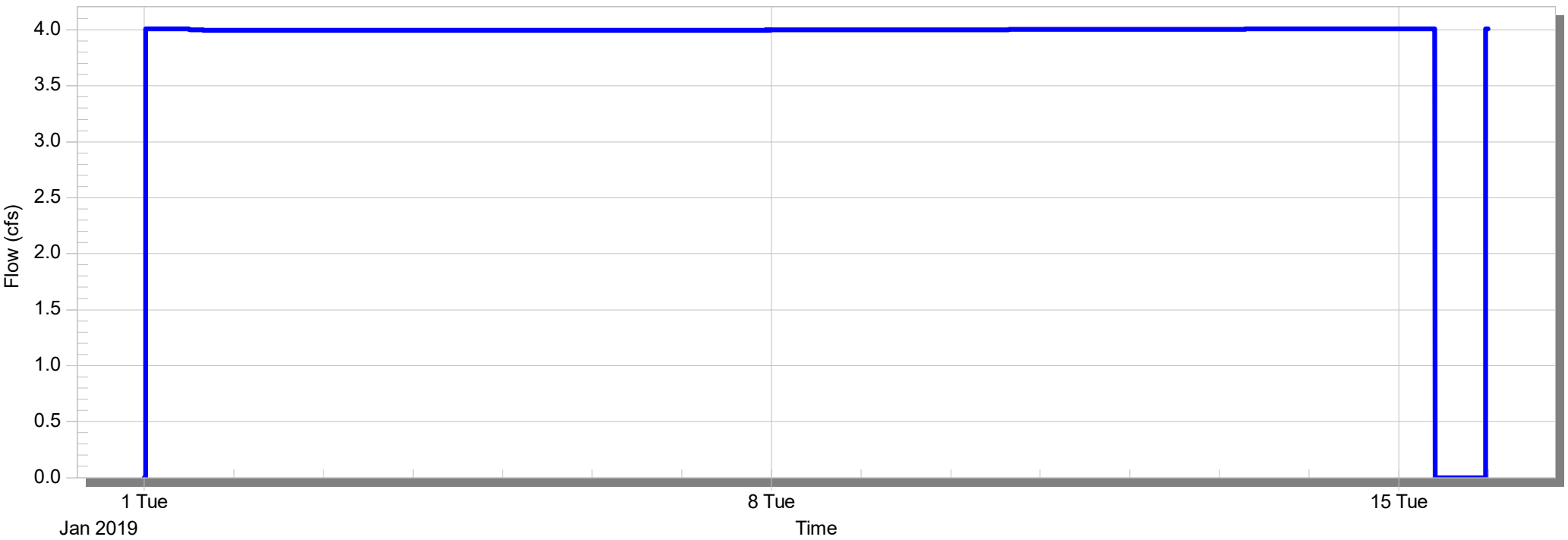
Conduit GLR Ditch from DC040 to DC037

[Max Flow = 4.1507][Max Velocity = 0.60]



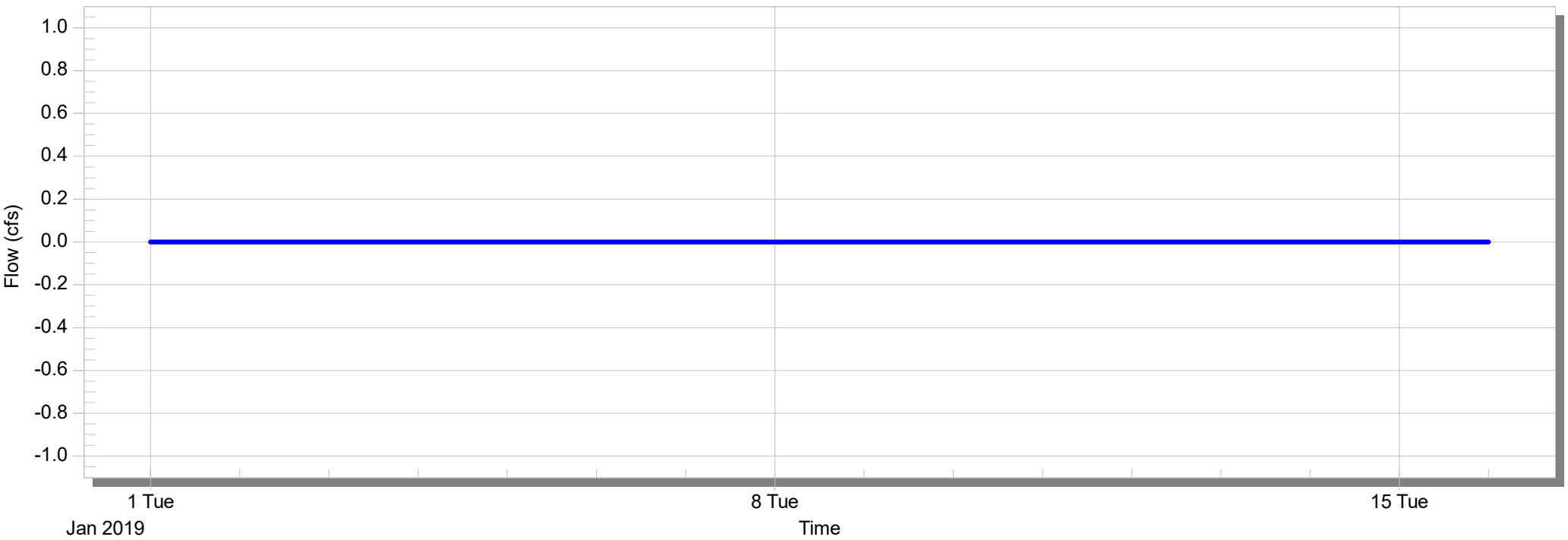
Diversion Temporary Pump System.1 from Tri Point GLR Hydrograph MH to DC040

[Max Flow = 4.0100]



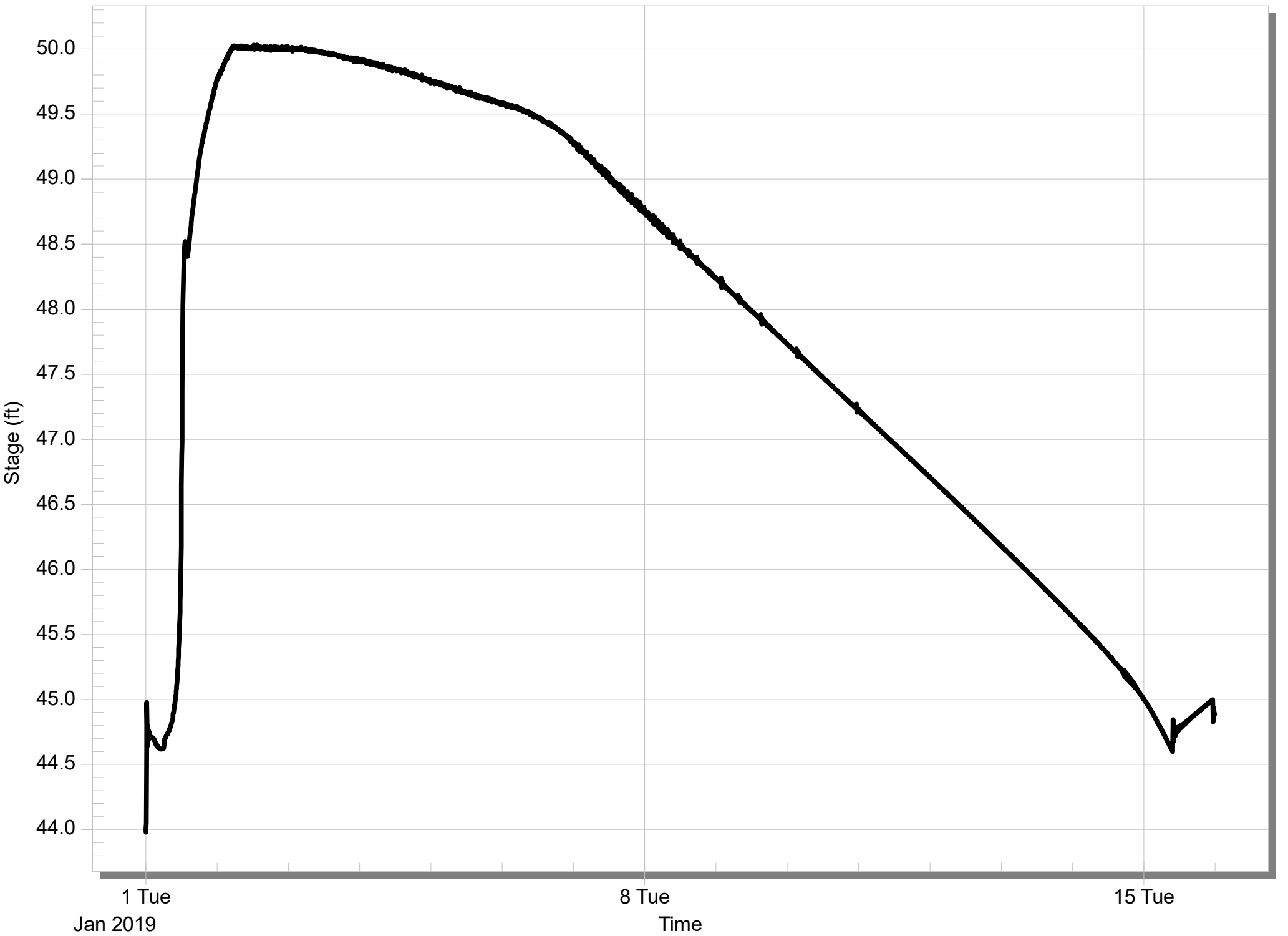
Diversion Siphon Weir.1 from Tri Point GLR Hydrograph MH to DC040

[Max Flow = 0.0000]



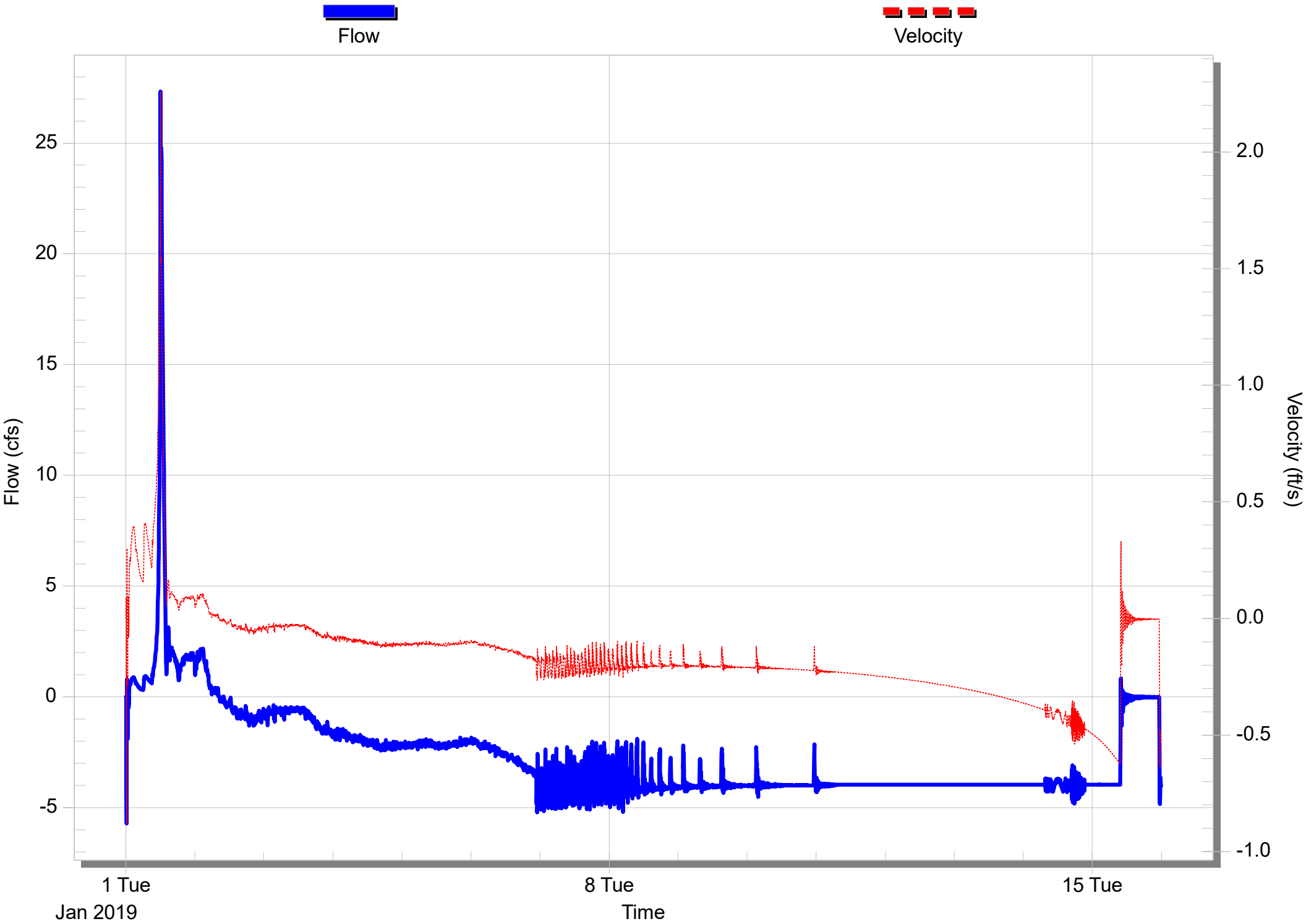
Node - Tri Point GLR Hydrograph MH

[Max Stage = 50.031]



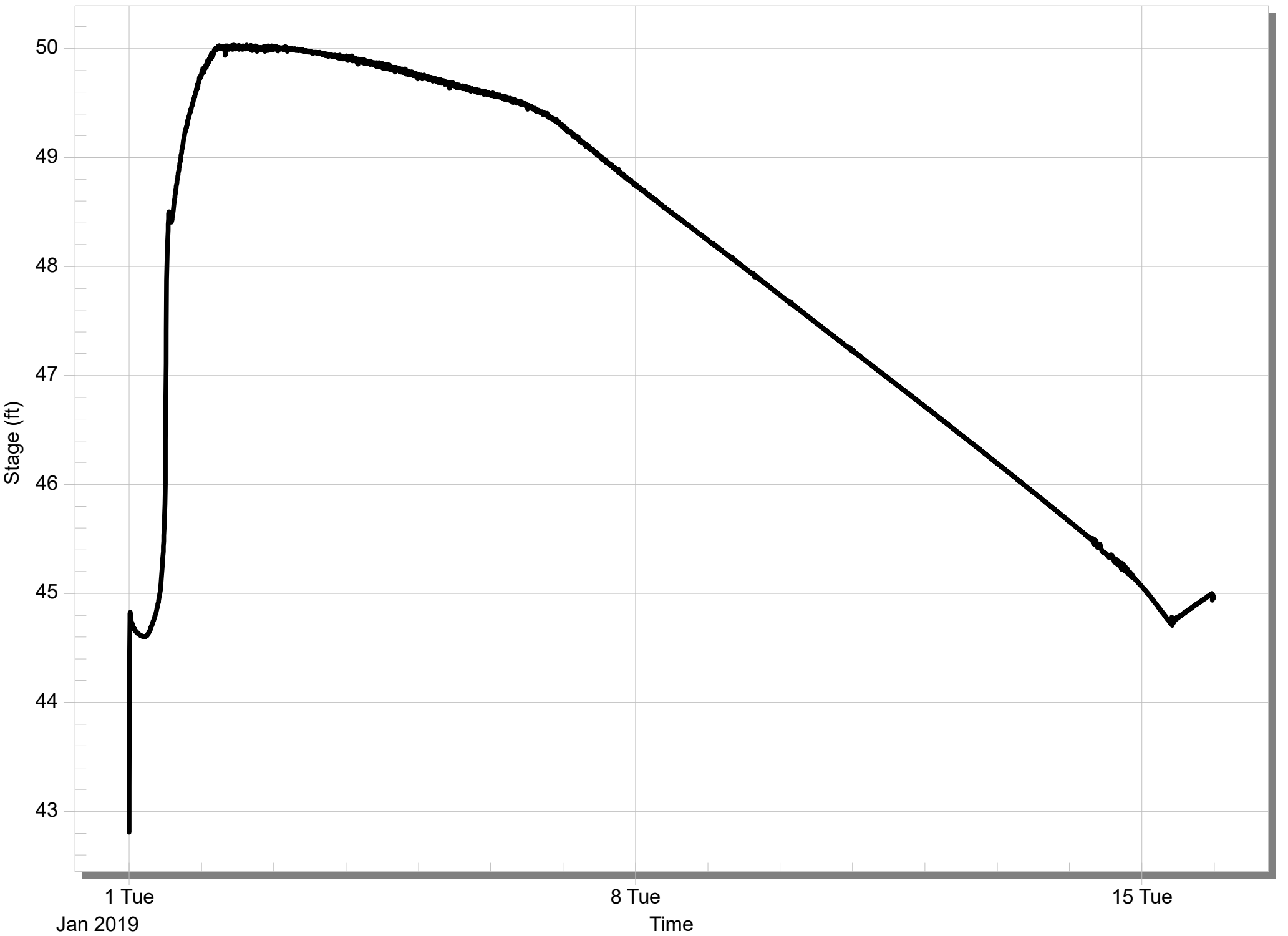
Conduit 60-In SD 1 from Tri Point GLR Hydrograph MH to Kubota Tie-In MH

[Max Flow = 27.3320][Max Velocity = 2.26]



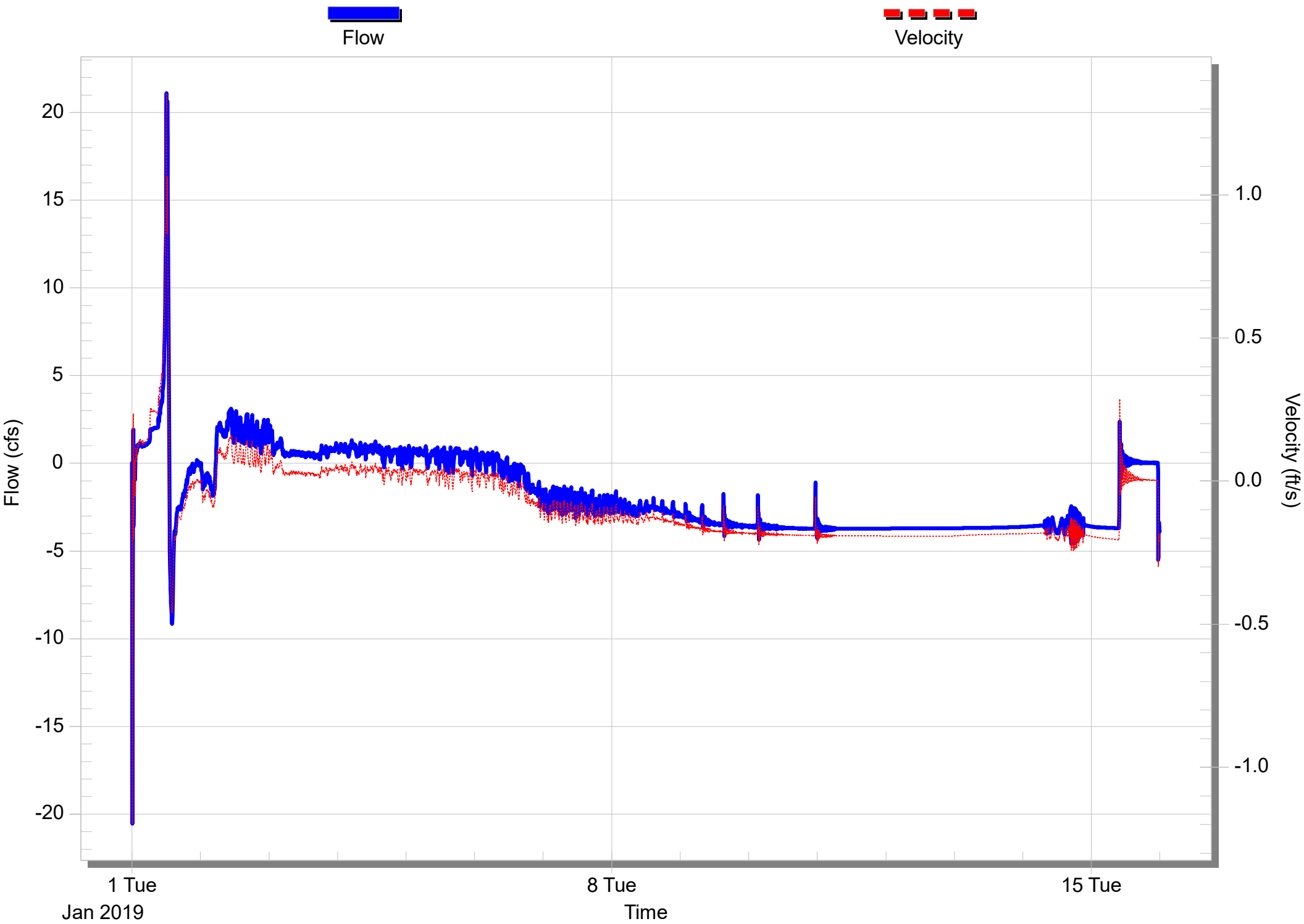
Node - Kubota Tie-In MH

[Max Stage = 50.033]



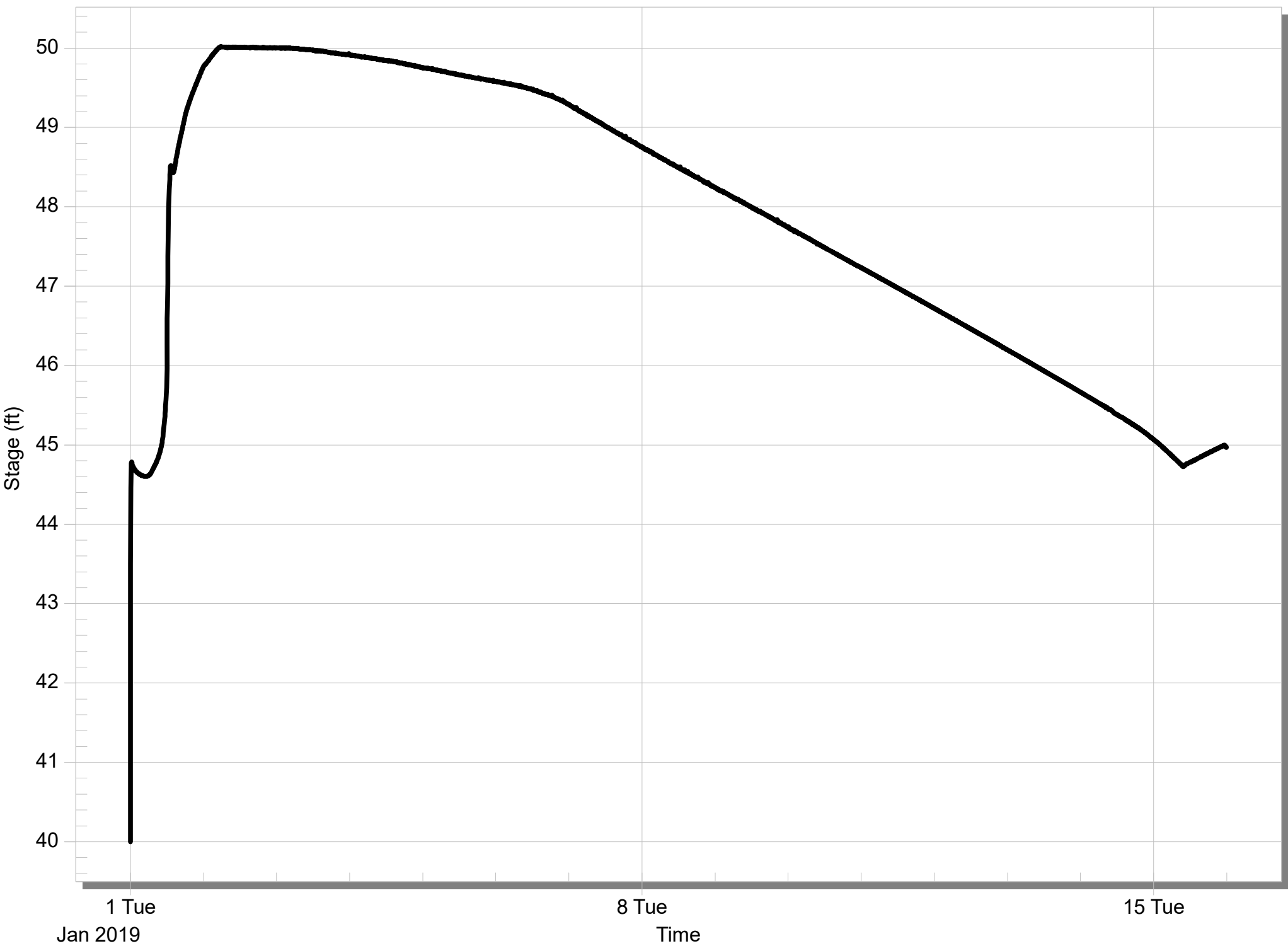
Conduit 60-In SD 2 from Kubota Tie-In MH to Panattoni Tie-In MH

[Max Flow = 21.1062][Max Velocity = 1.36]



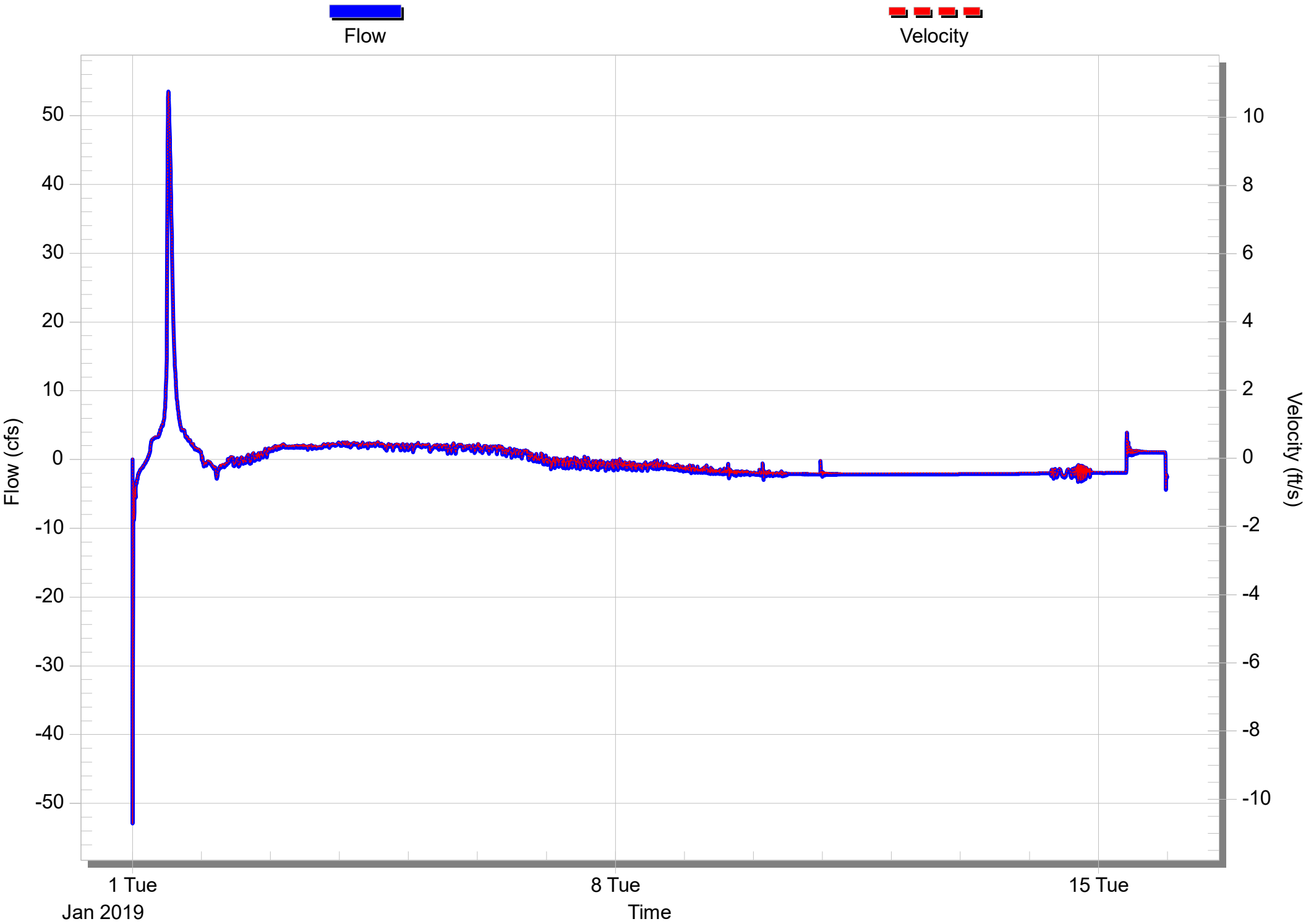
Node - Panattoni Tie-In MH

[Max Stage = 50.018]



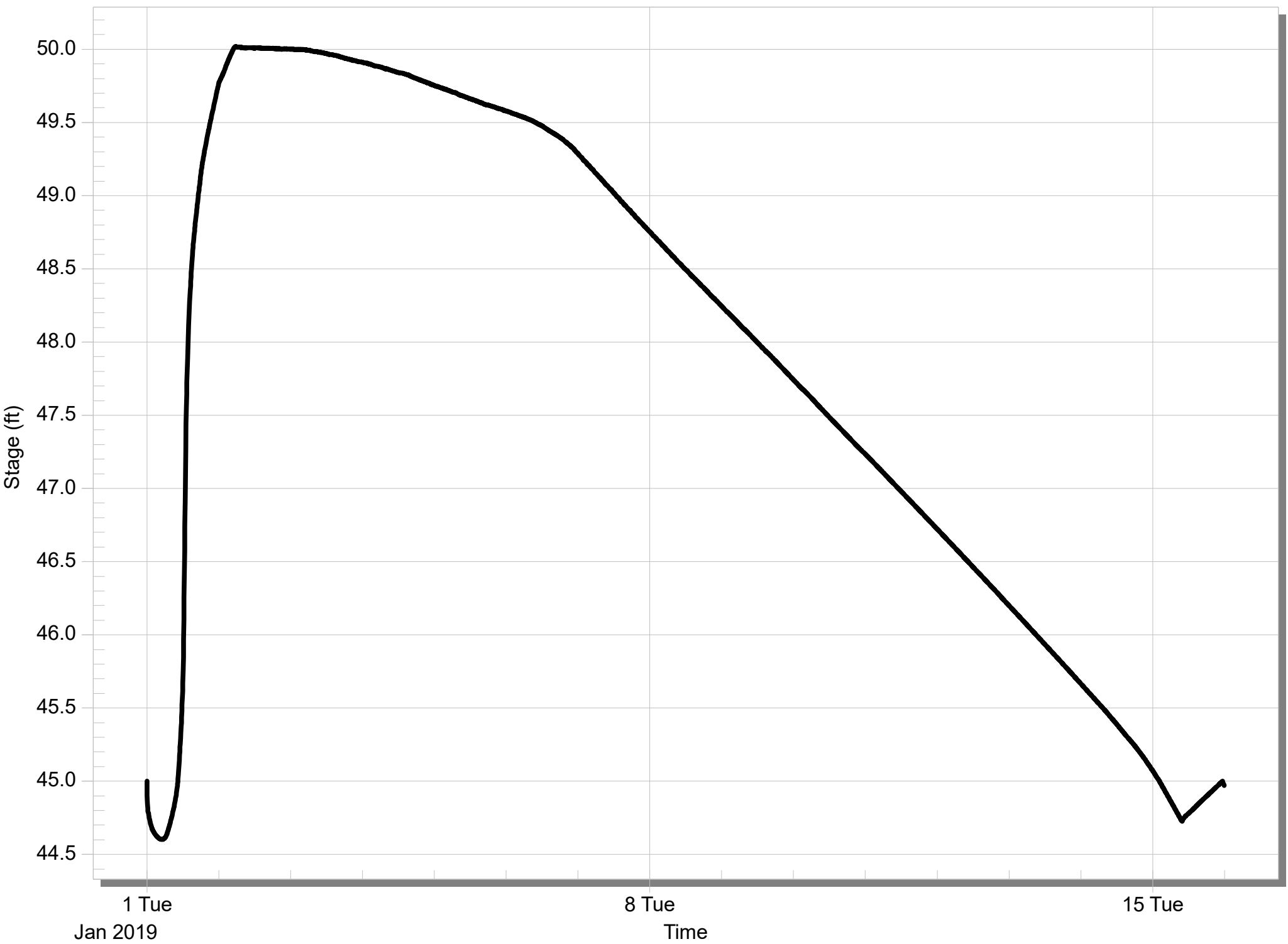
Conduit Interim 30-In SD from Panattoni Tie-In MH to Interim City Basin

[Max Flow = 53.5185][Max Velocity = 10.76]



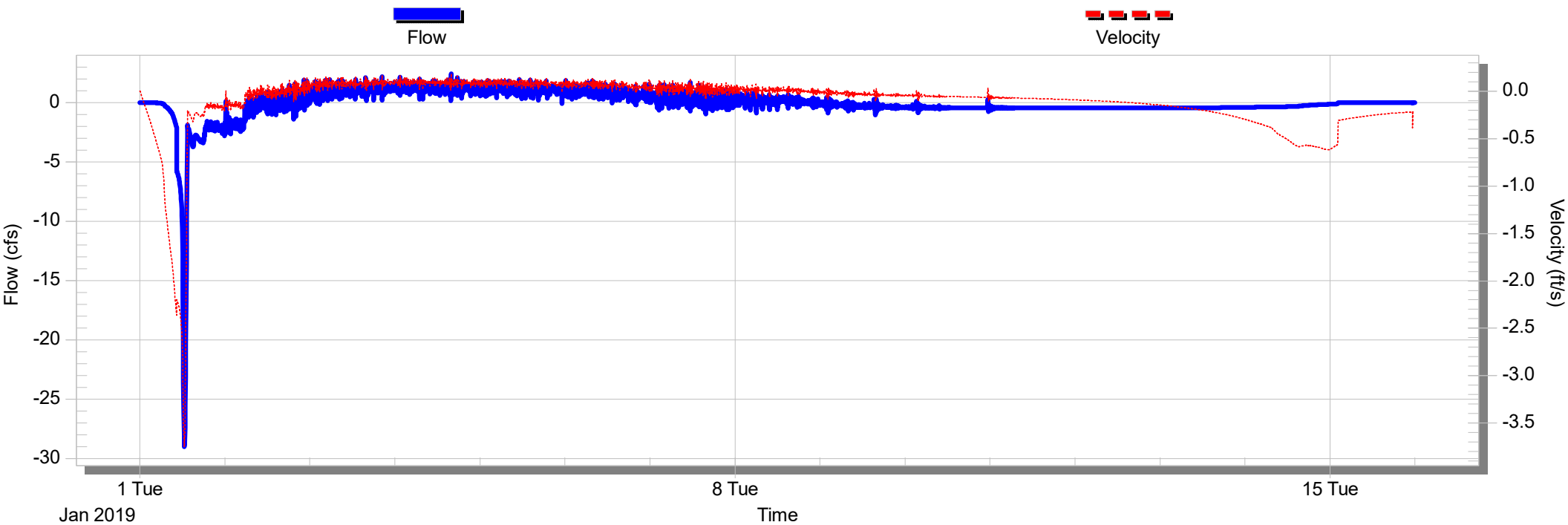
Node - Interim City Basin

[Max Stage = 50.019]



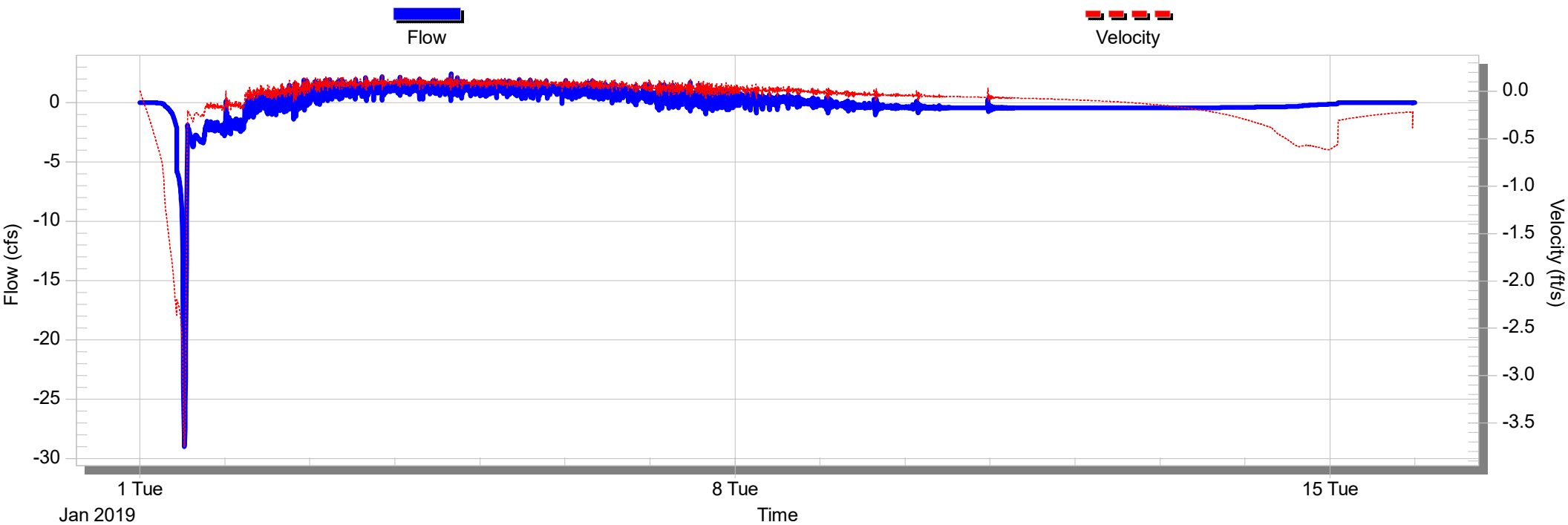
Conduit 48-In Equalizer SD 1 from Interim City Basin to Kubota Basin

[Max Flow = -29.0006][Max Velocity = -3.75]



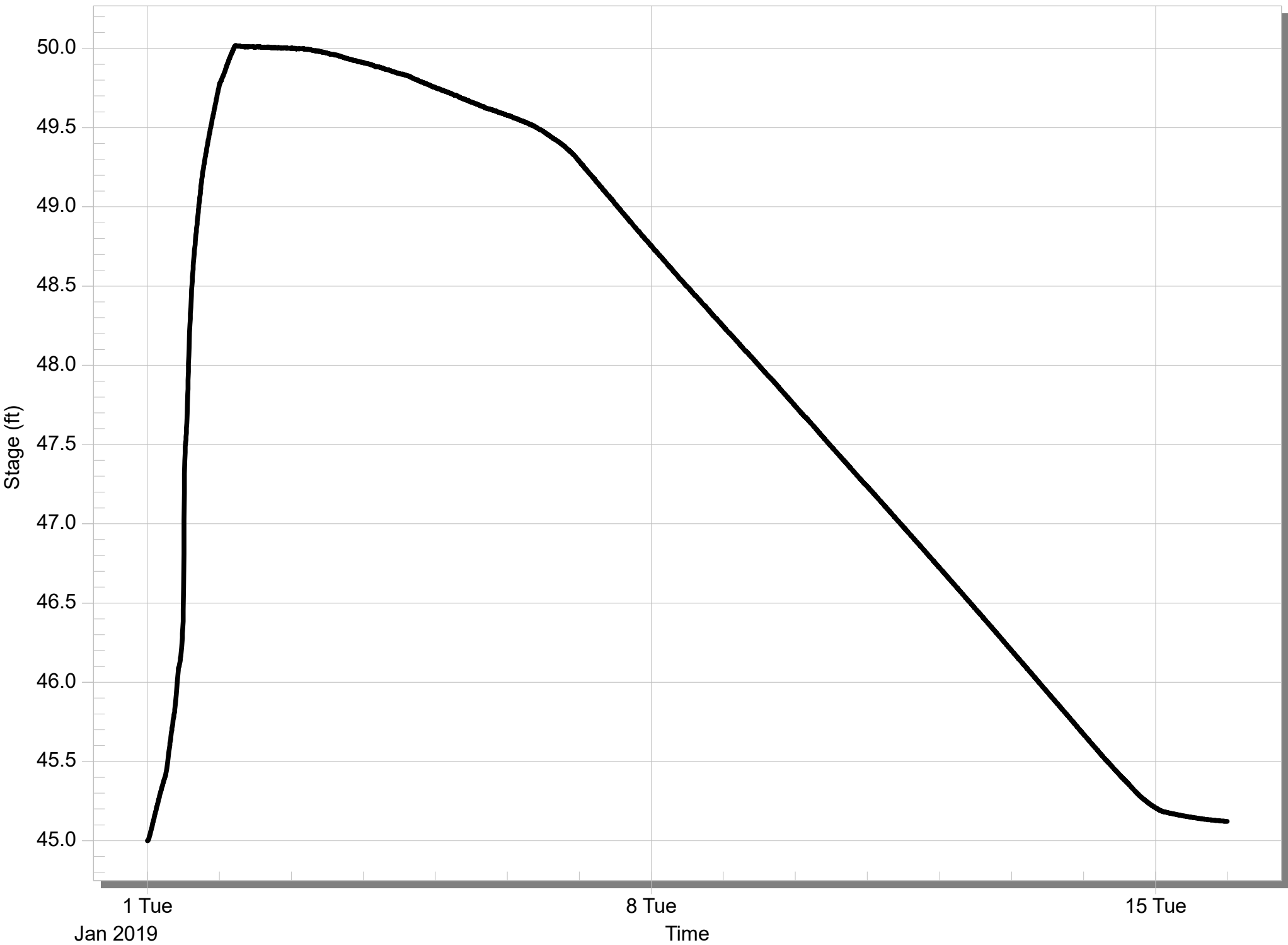
Conduit 48-In Equalizer SD 2 from Interim City Basin to Kubota Basin

[Max Flow = -29.0006][Max Velocity = -3.75]



Node - Kubota Basin

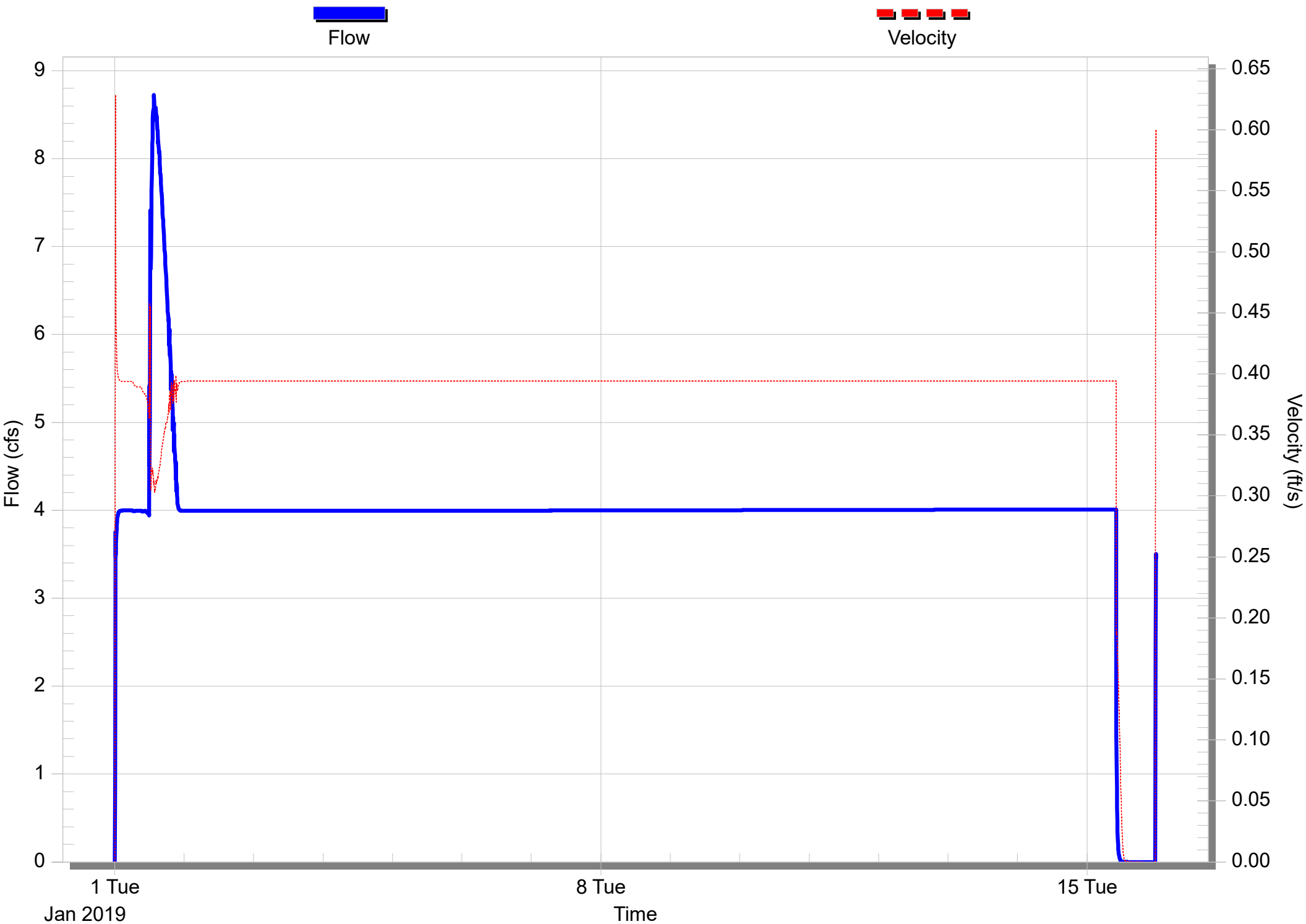
[Max Stage = 50.019]



**10-Year, 24-Hour Storm
Starting with a Full City Basin**

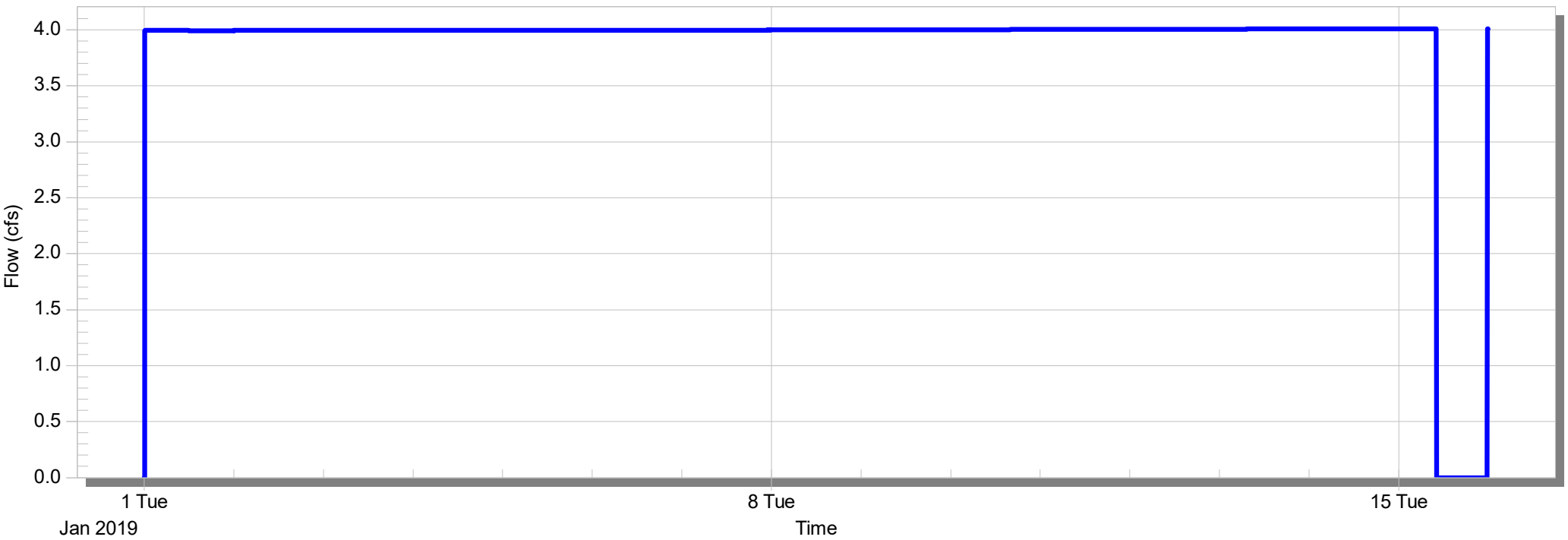
Conduit GLR Ditch from DC040 to DC037

[Max Flow = 8.7233][Max Velocity = 0.63]



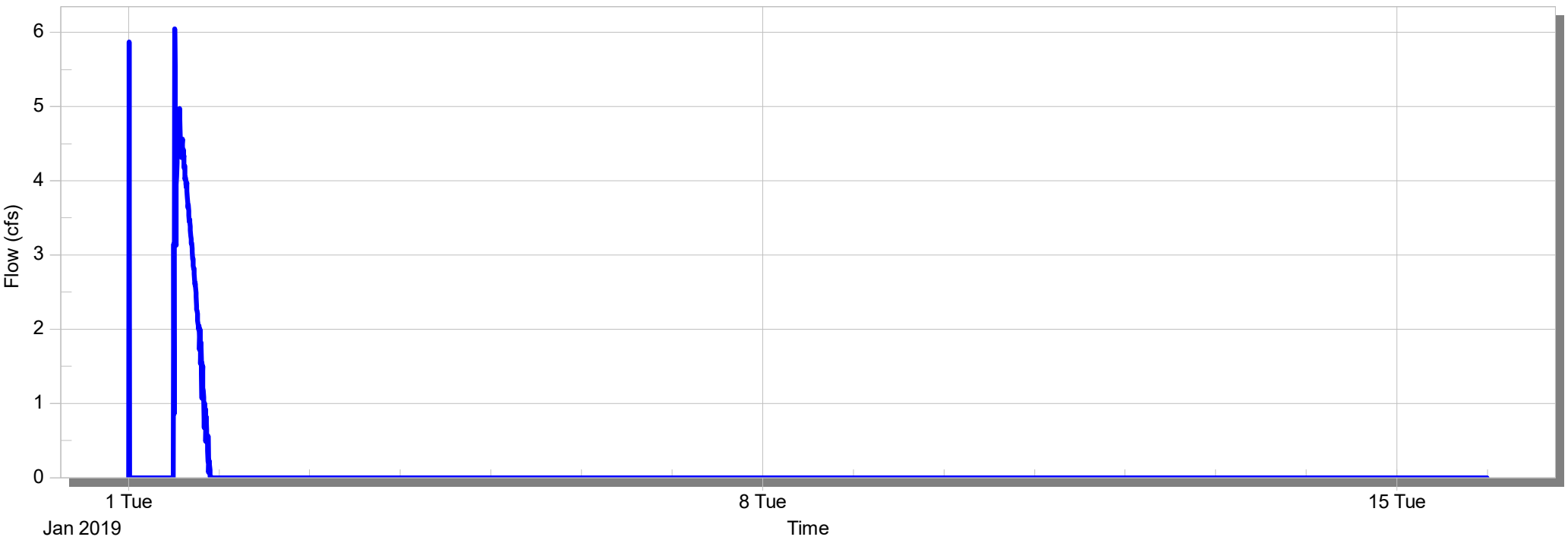
Diversion Temporary Pump System.1 from Tri Point GLR Hydrograph MH to DC040

[Max Flow = 4.0100]



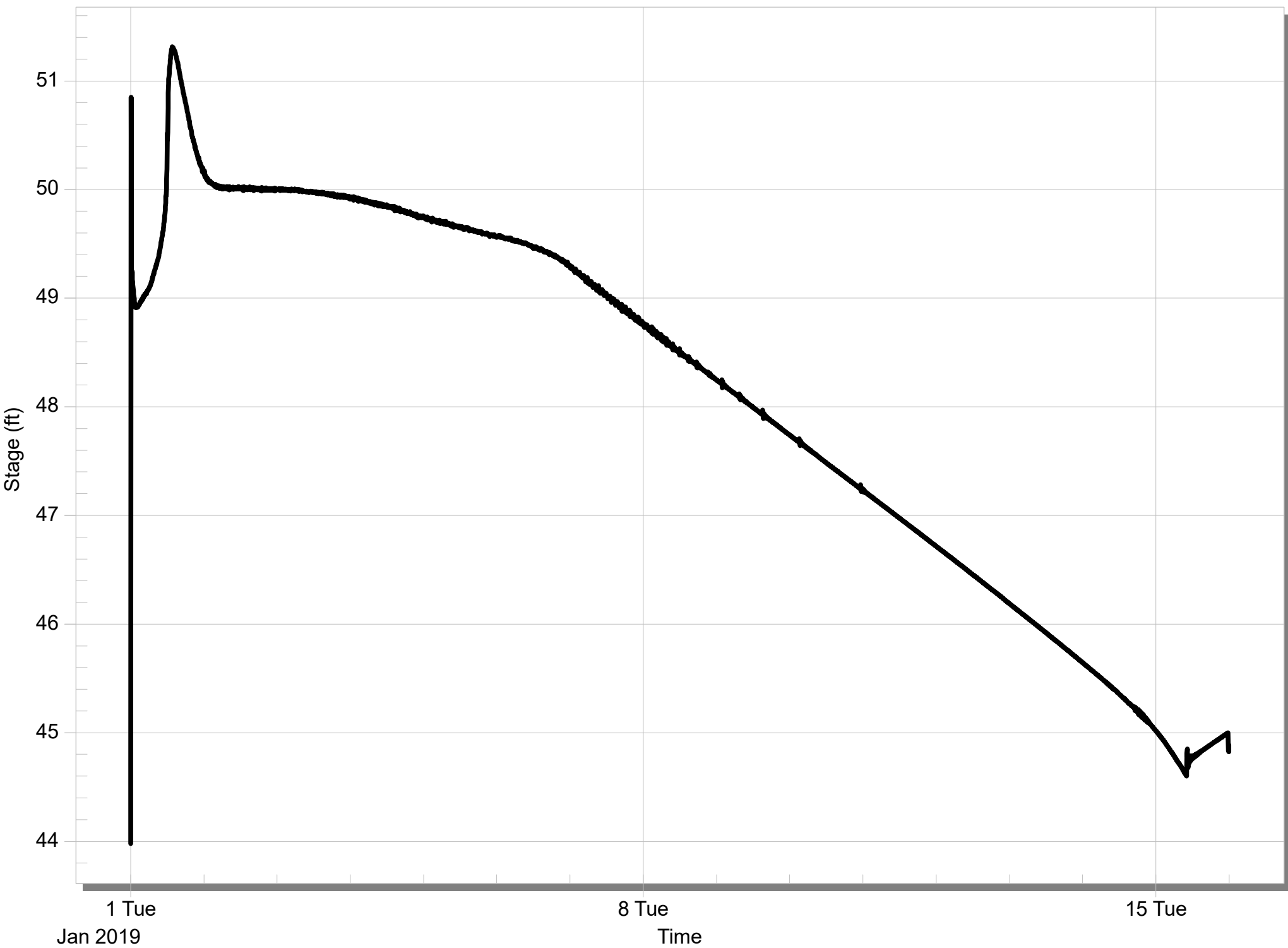
Diversion Siphon Weir.1 from Tri Point GLR Hydrograph MH to DC040

[Max Flow = 6.0490]



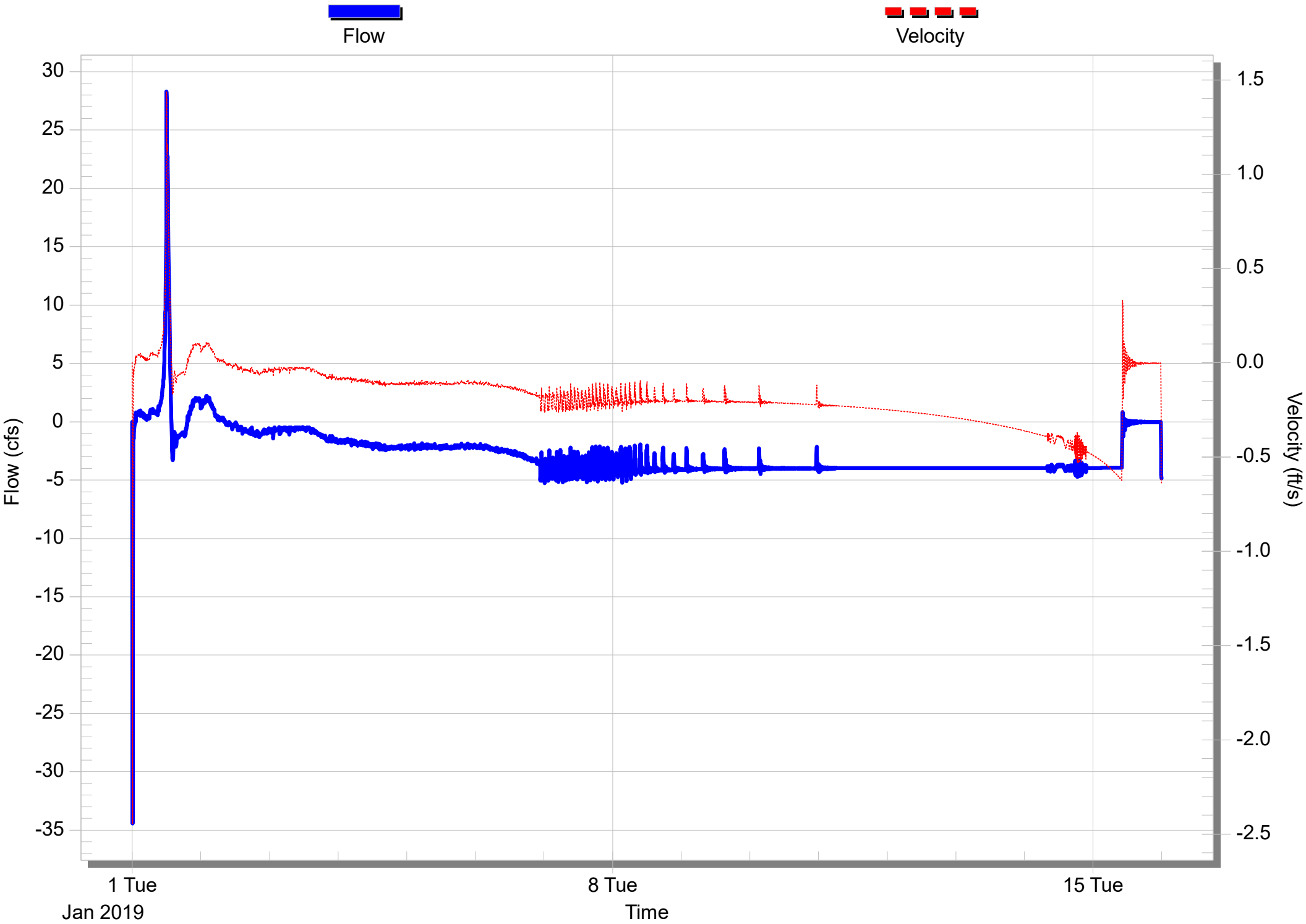
Node - Tri Point GLR Hydrograph MH

[Max Stage = 51.314]



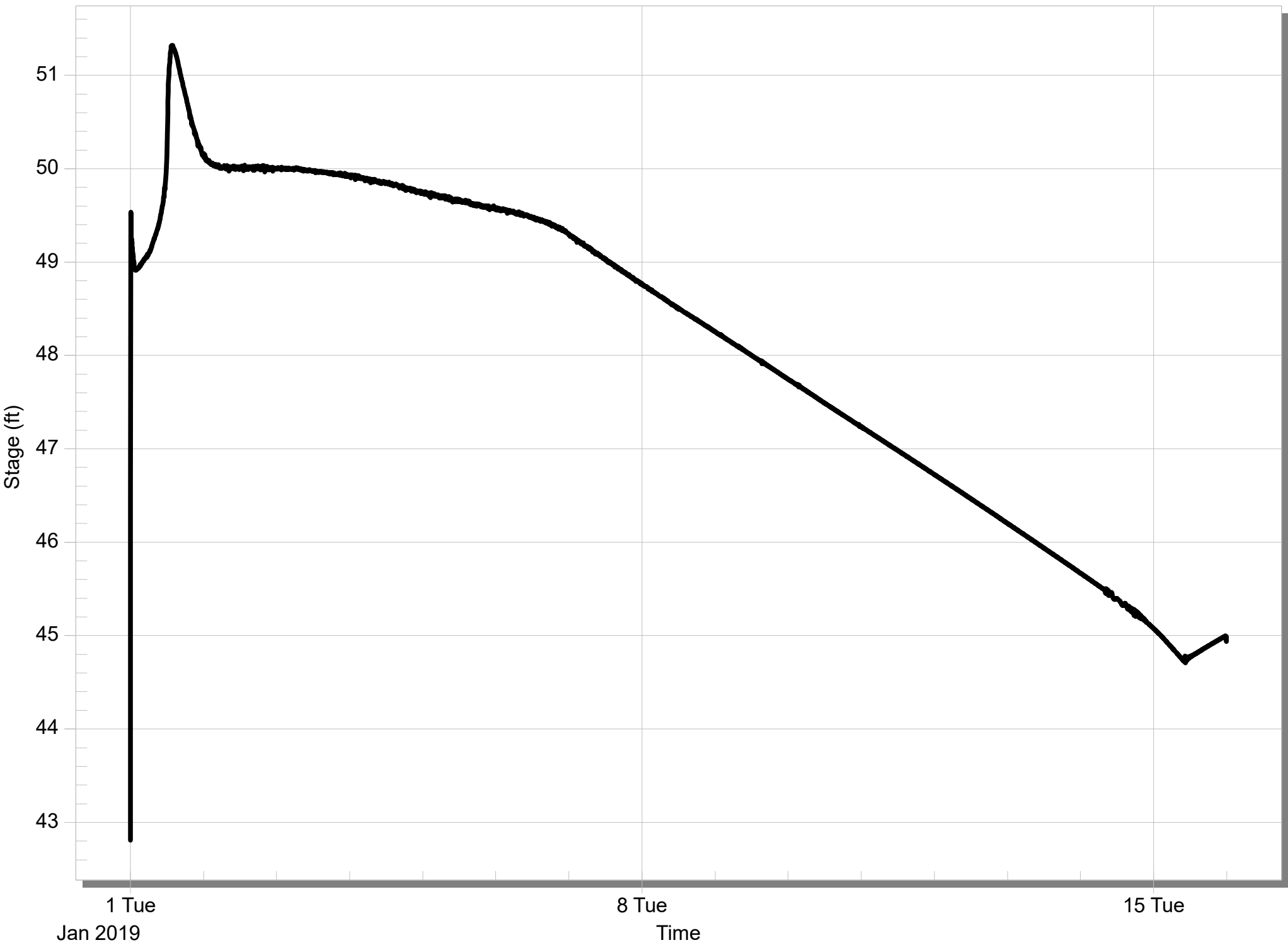
Conduit 60-In SD 1 from Tri Point GLR Hydrograph MH to Kubota Tie-In MH

[Max Flow = -34.4274][Max Velocity = -2.44]



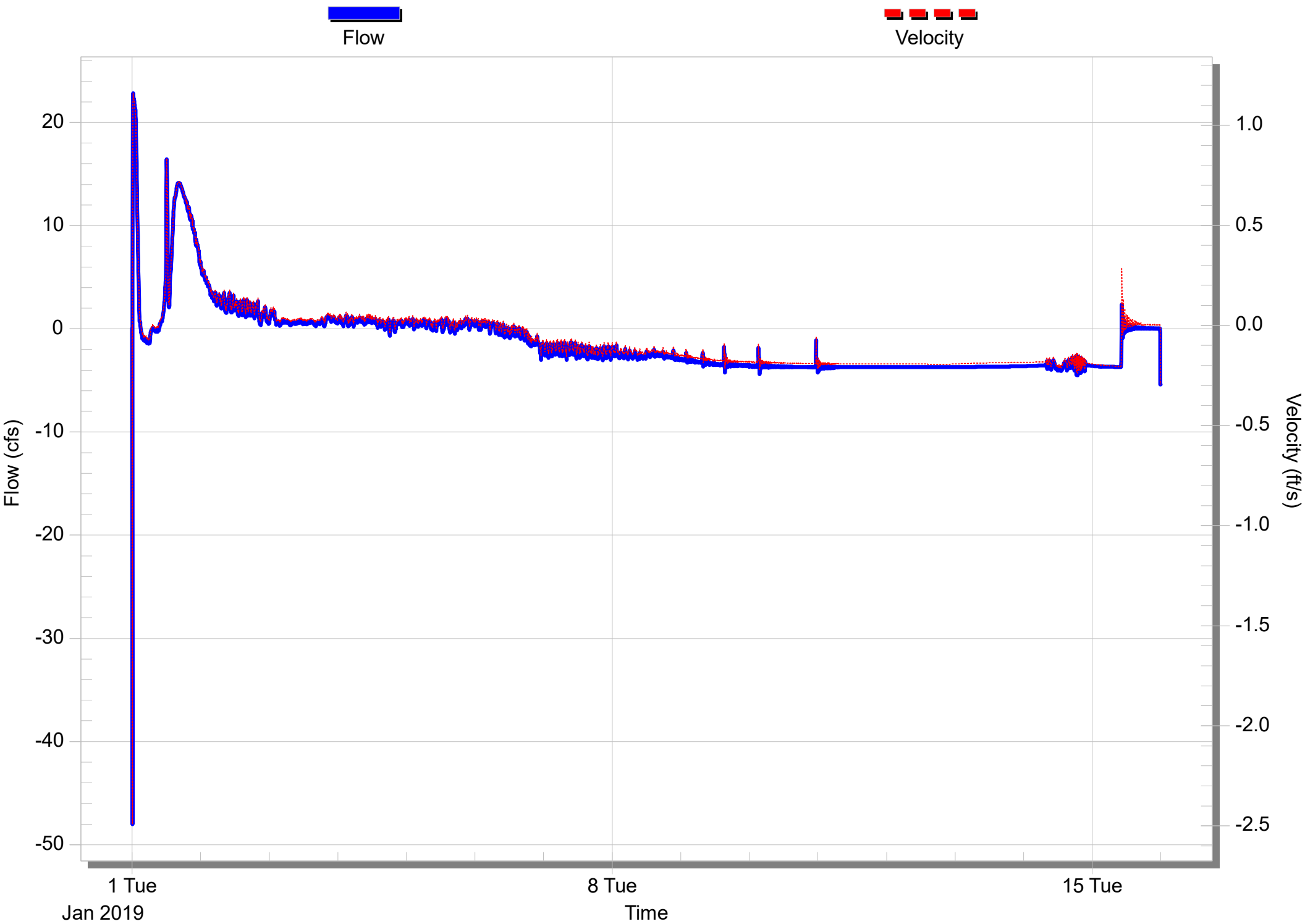
Node - Kubota Tie-In MH

[Max Stage = 51.320]



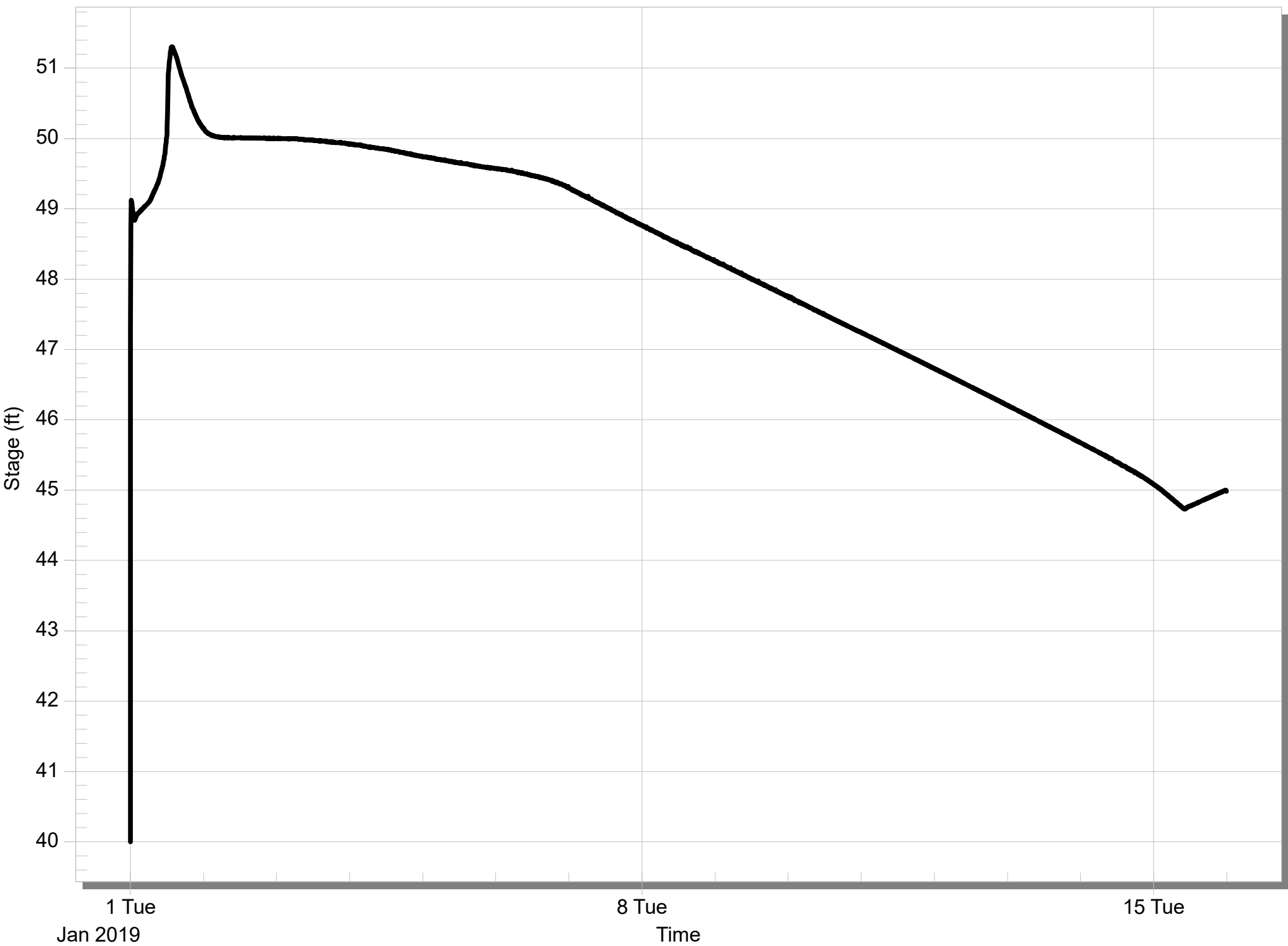
Conduit 60-In SD 2 from Kubota Tie-In MH to Panattoni Tie-In MH

[Max Flow = -48.0150][Max Velocity = -2.49]



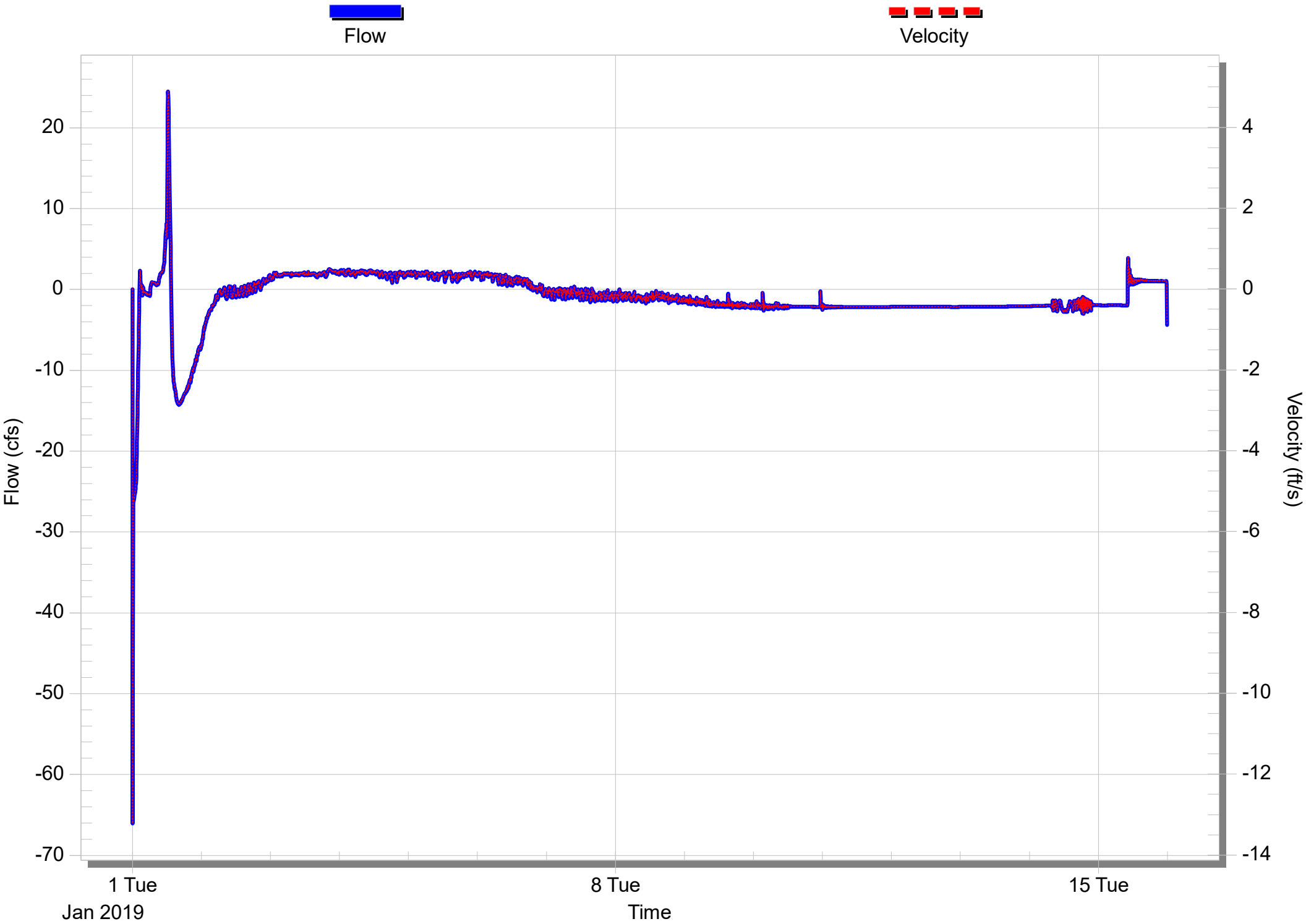
Node - Panattoni Tie-In MH

[Max Stage = 51.306]



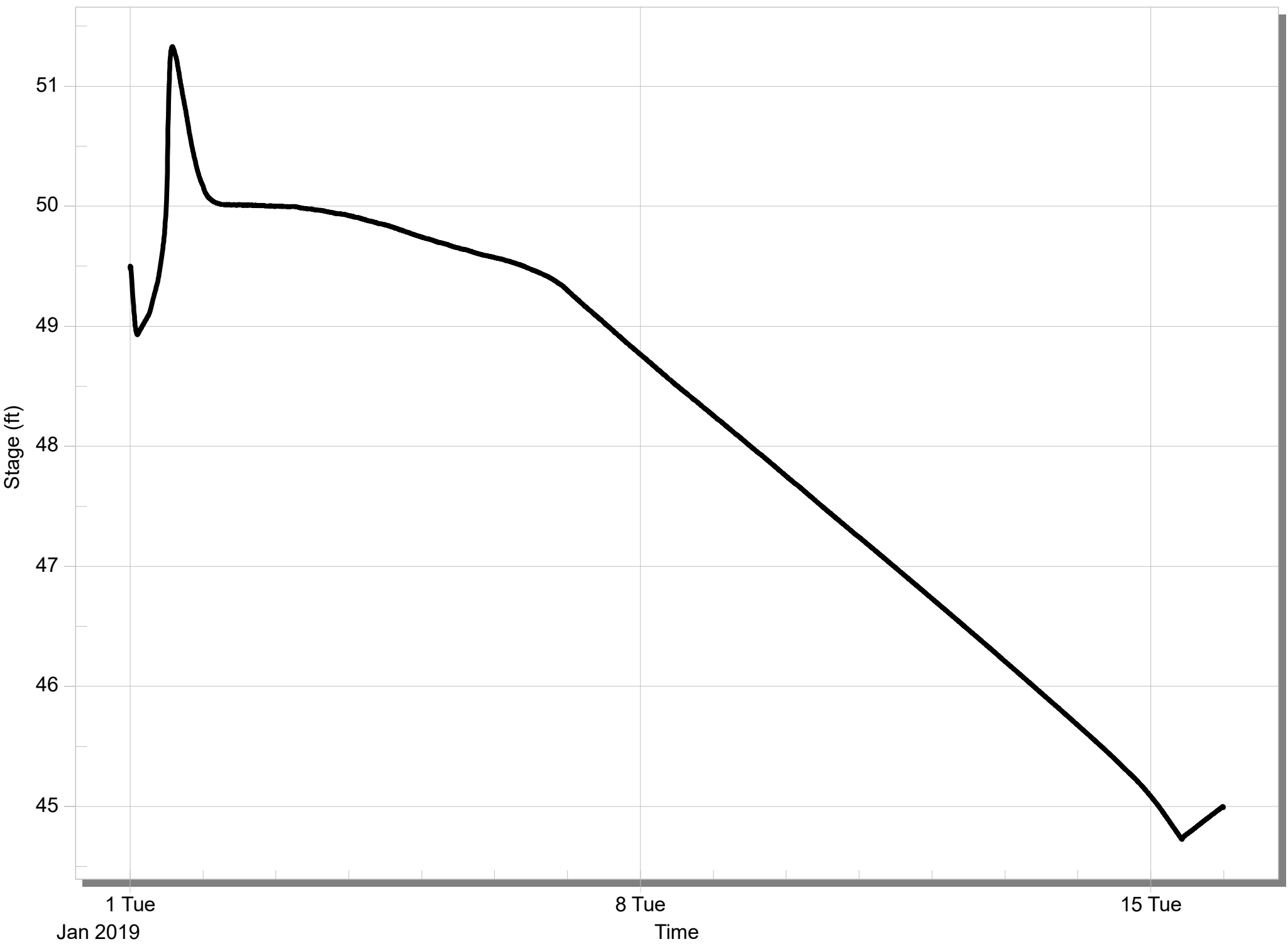
Conduit Interim 30-In SD from Panattoni Tie-In MH to Interim City Basin

[Max Flow = -66.0593][Max Velocity = -13.22]



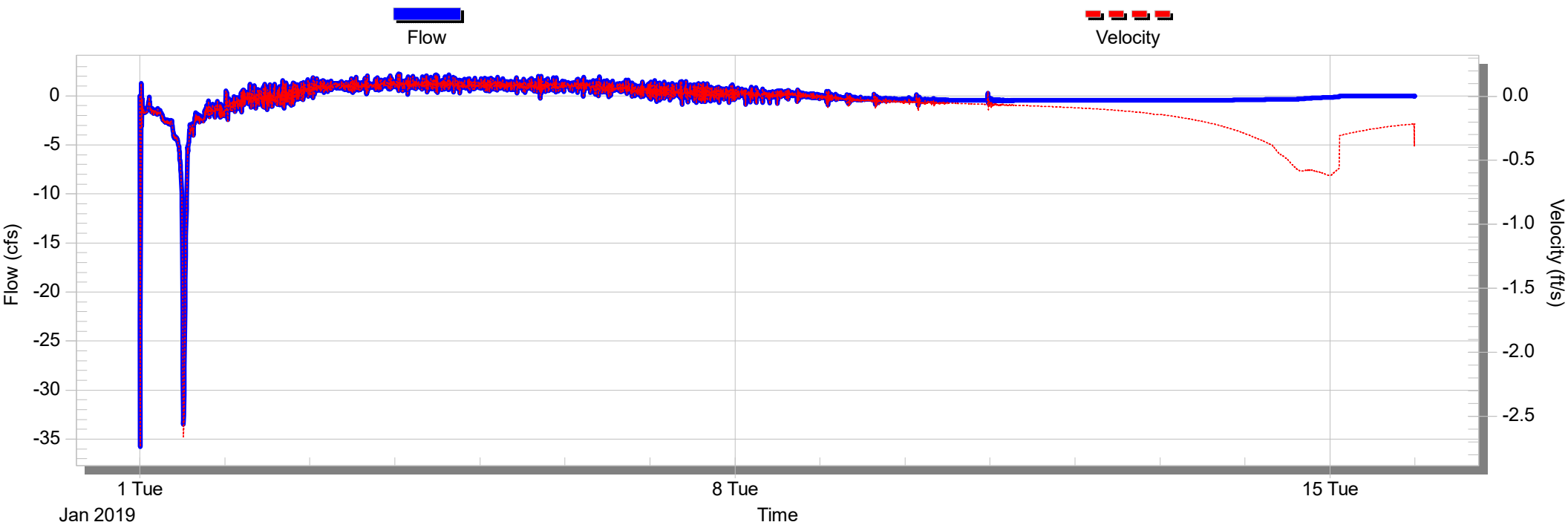
Node - Interim City Basin

[Max Stage = 51.330]



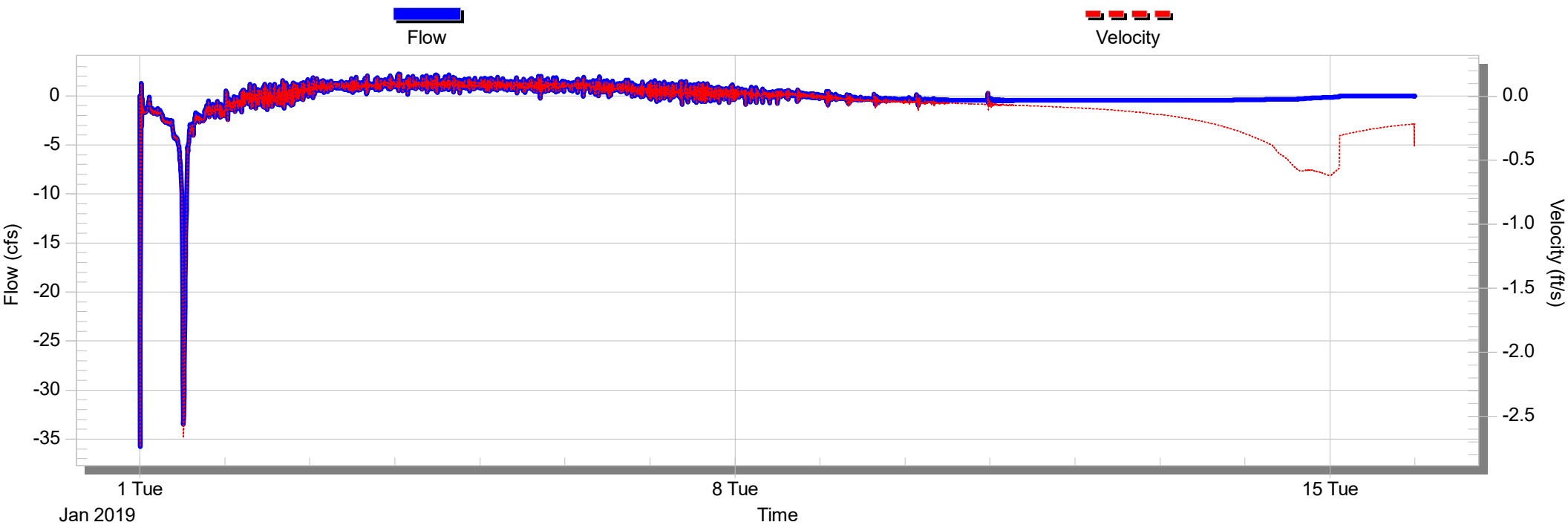
Conduit 48-In Equalizer SD 1 from Interim City Basin to Kubota Basin

[Max Flow = -35.7821][Max Velocity = -2.74]



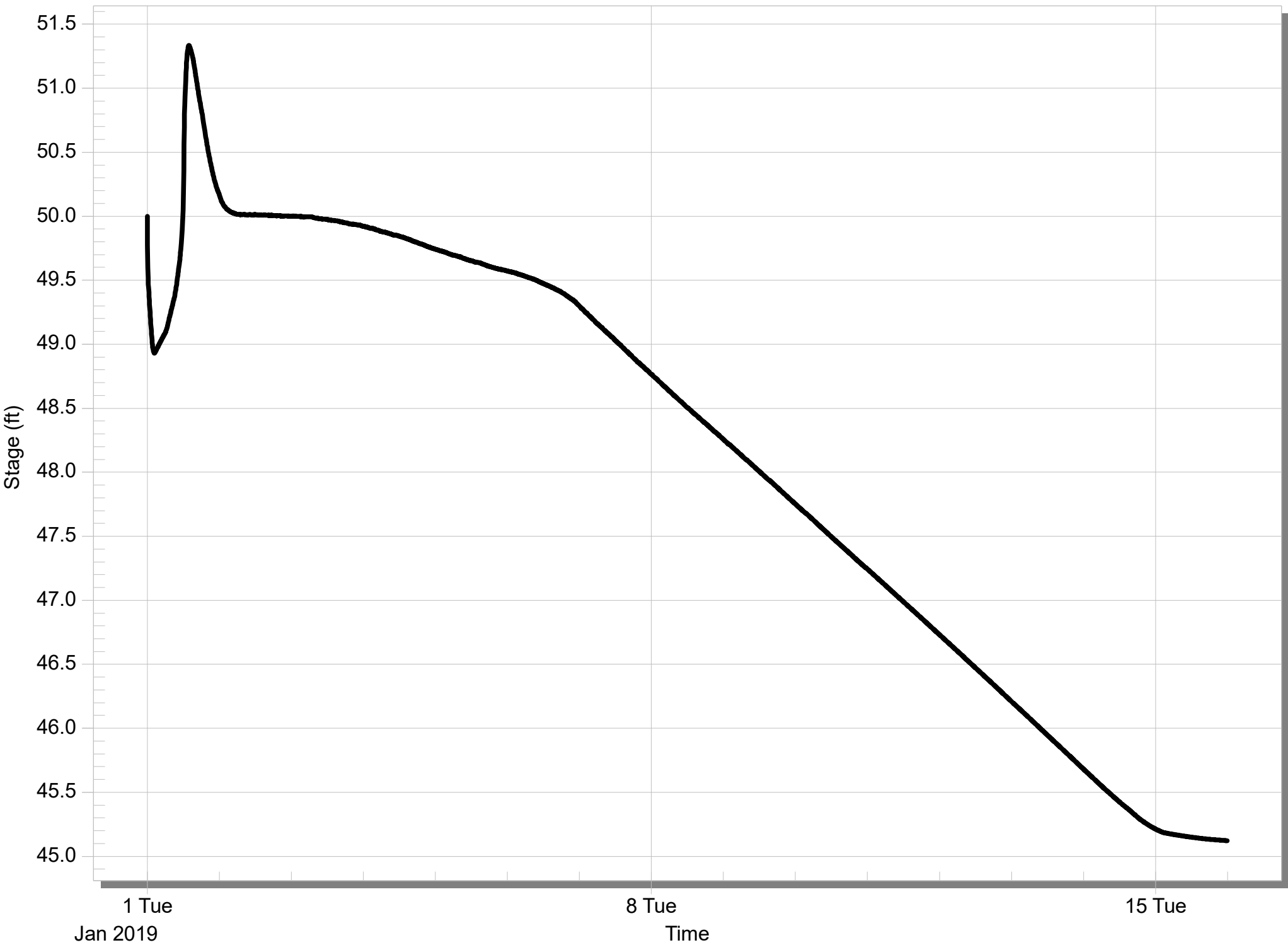
Conduit 48-In Equalizer SD 2 from Interim City Basin to Kubota Basin

[Max Flow = -35.7821][Max Velocity = -2.74]



Node - Kubota Basin

[Max Stage = 51.334]



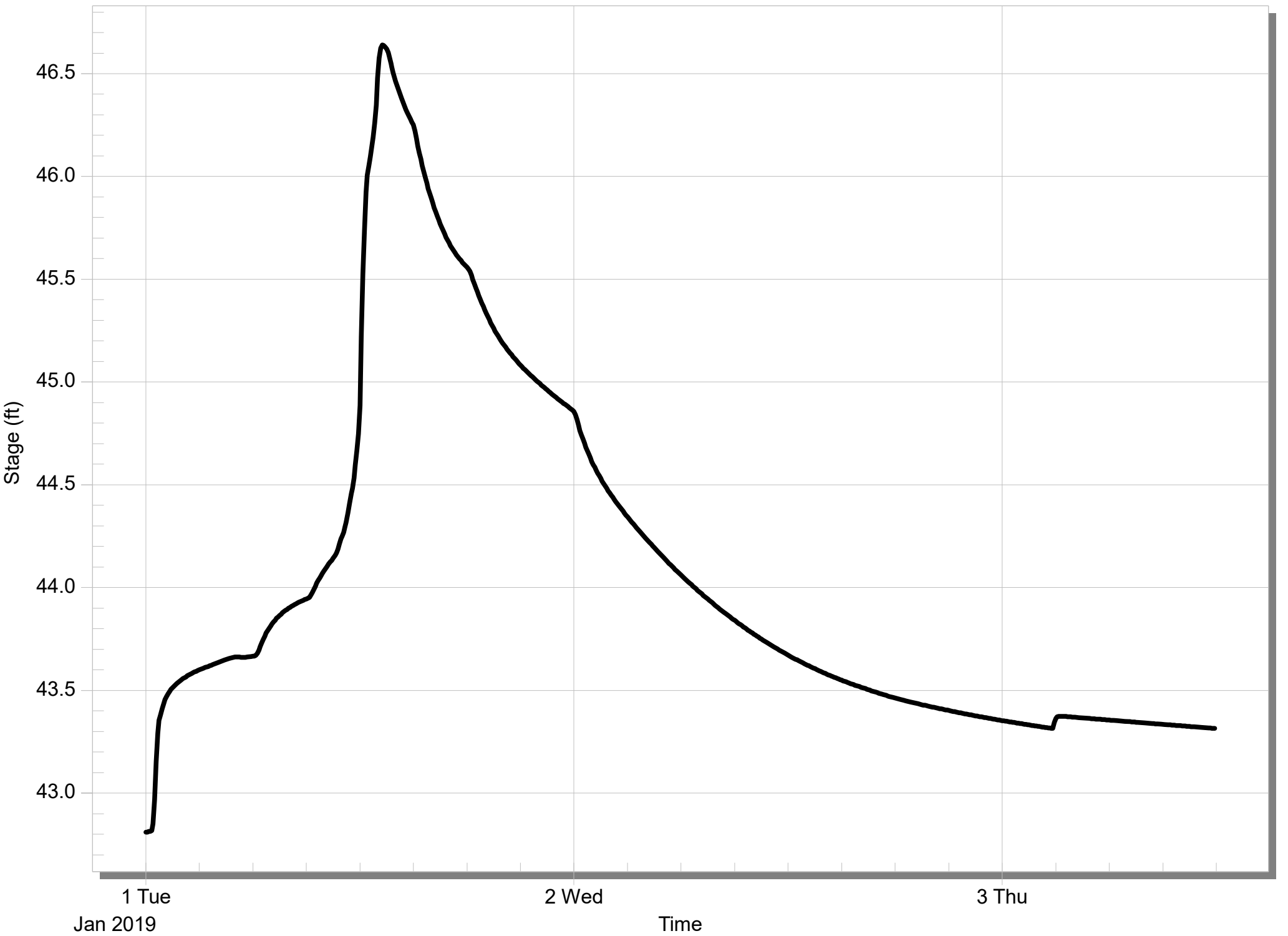
APPENDIX B

Ultimate Hydraulic Analysis

**10-Year Analysis
Alternative 1**

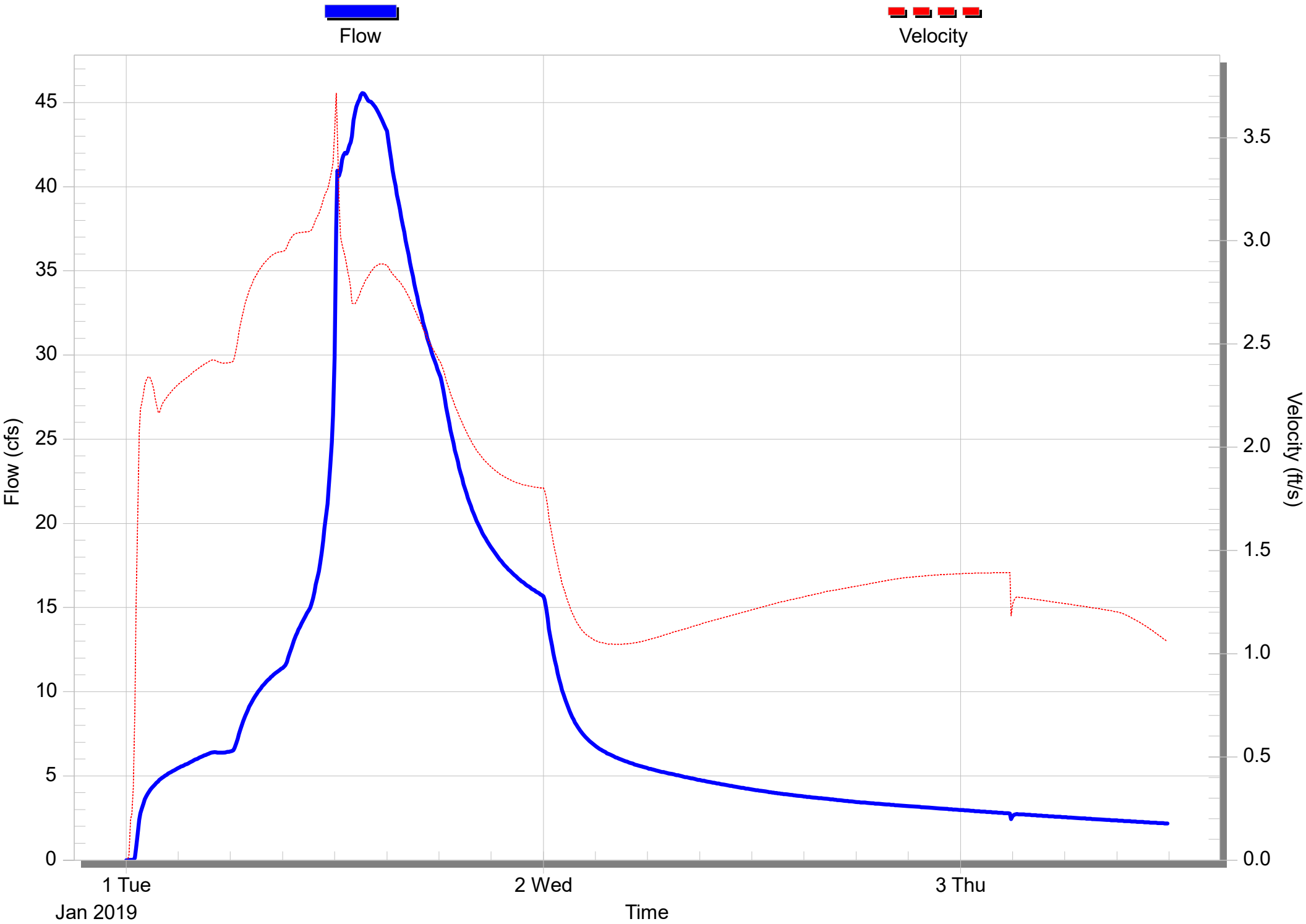
Node - Kubota Tie-In MH

[Max Stage = 46.640]



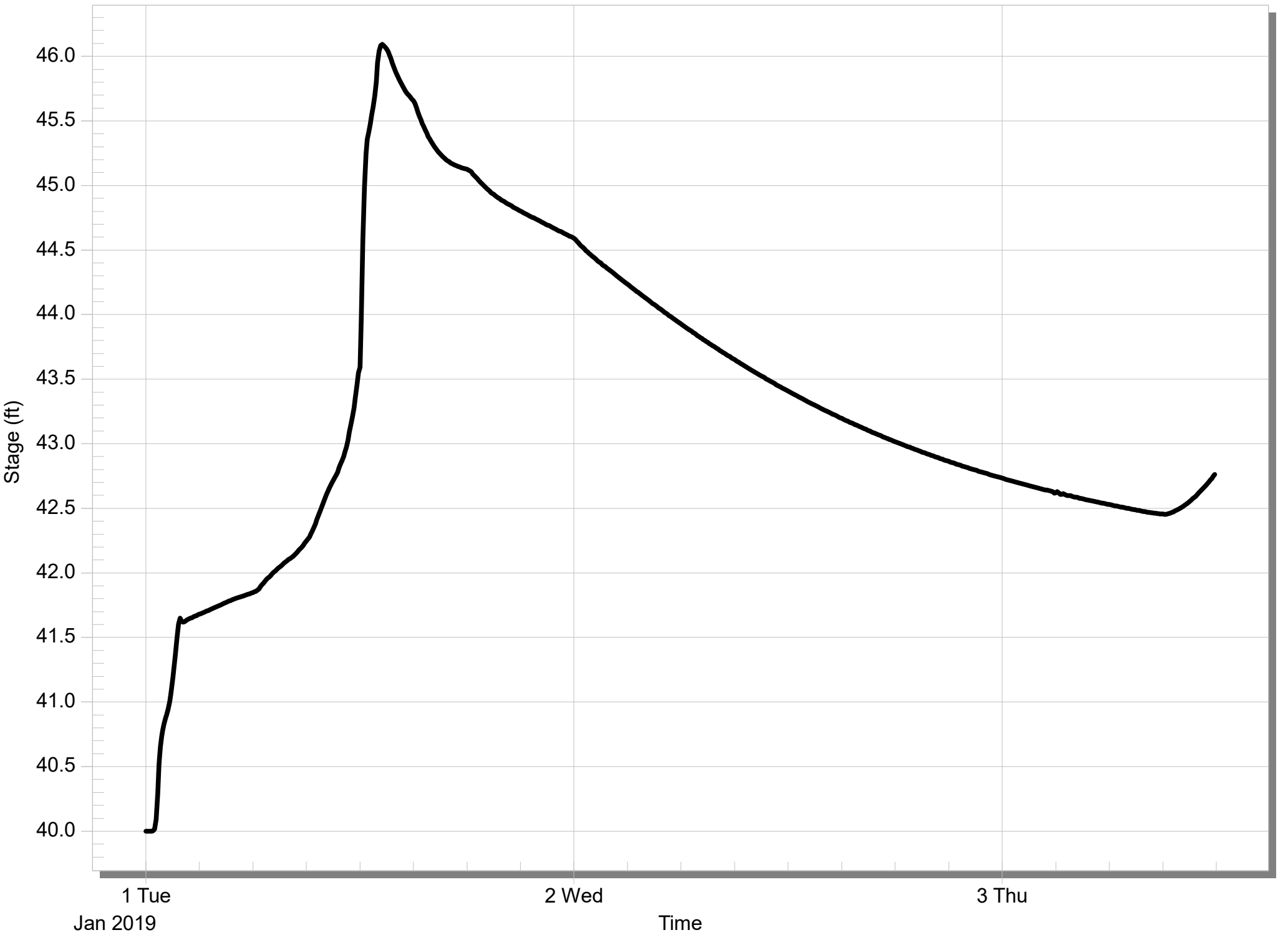
Conduit 60-In SD 1 from Kubota Tie-In MH to Panattoni Tie-In MH

[Max Flow = 45.5515][Max Velocity = 3.71]



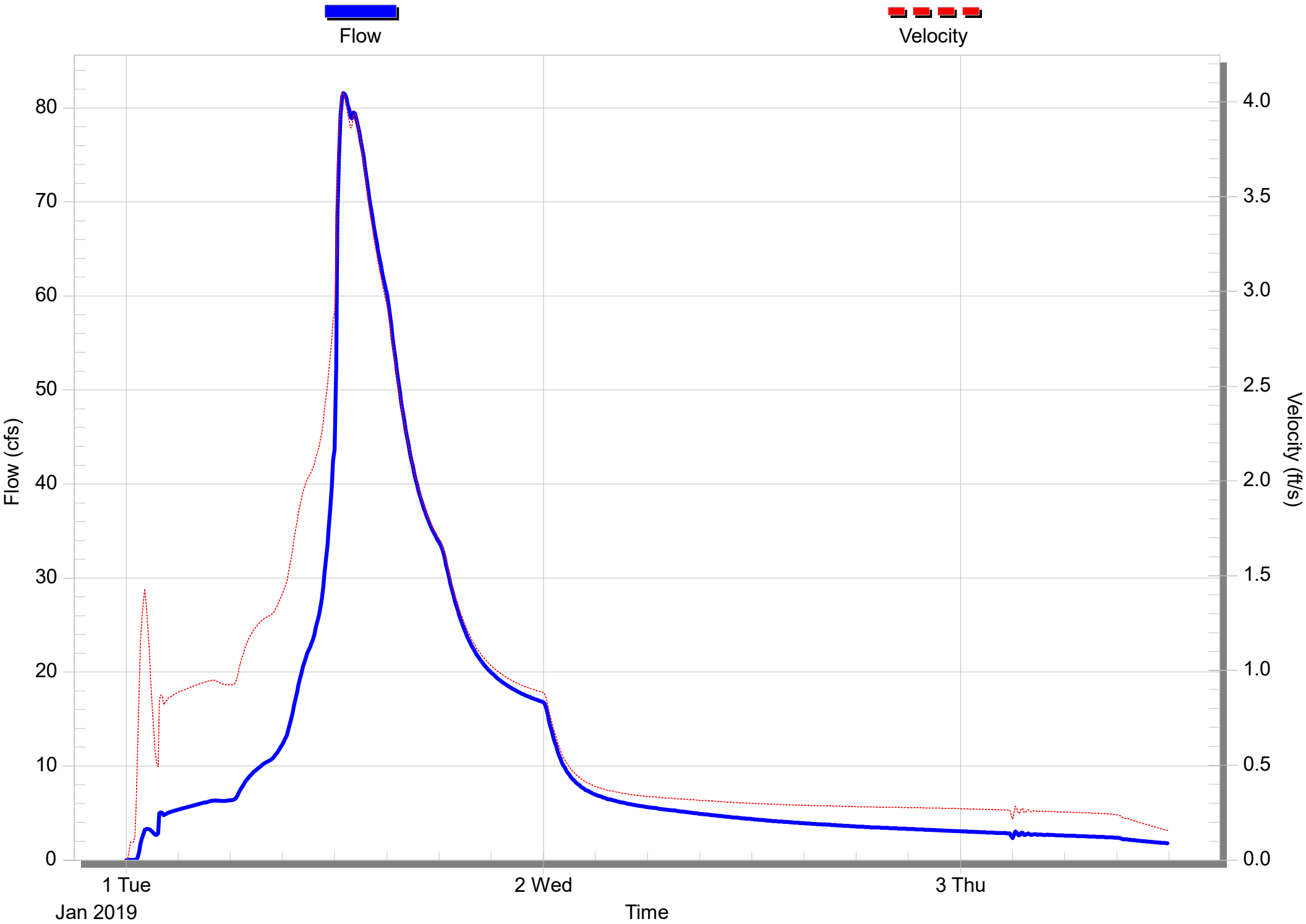
Node - Panattoni Tie-In MH

[Max Stage = 46.093]



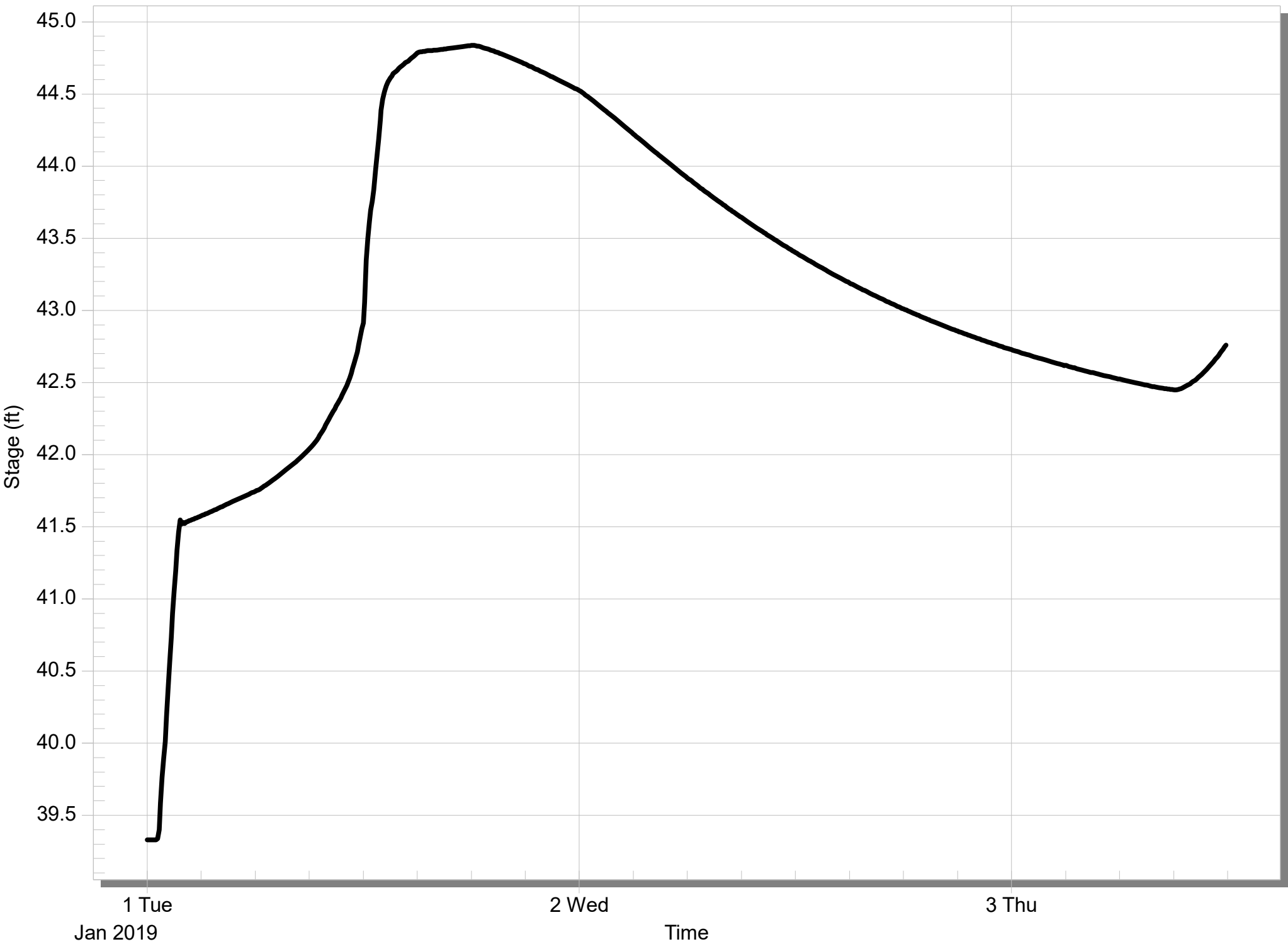
Conduit 60-In SD Pipe 2 from Panattoni Tie-In MH to Basin B Future Tie-In MH

[Max Flow = 81.5659][Max Velocity = 4.05]



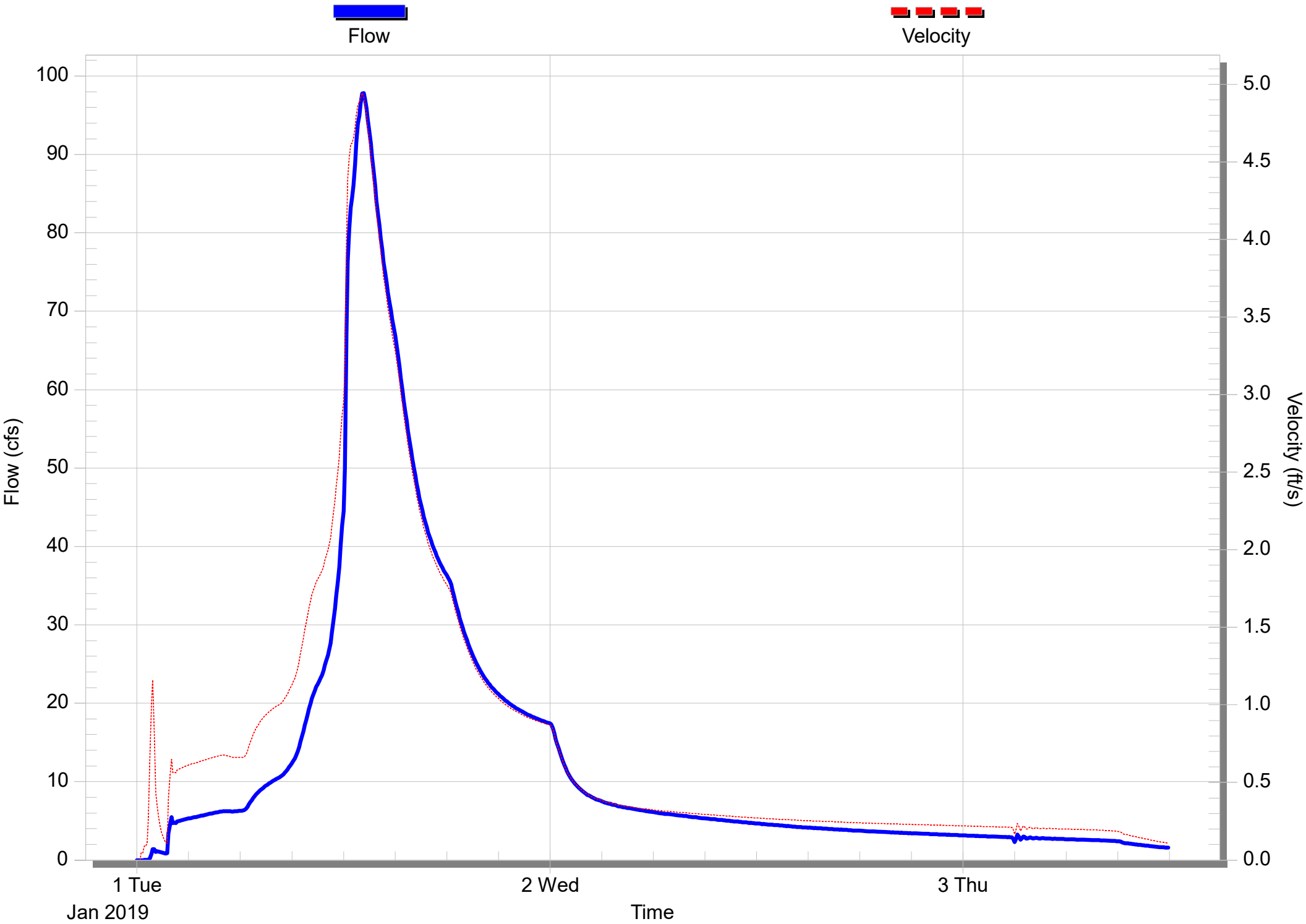
Node - Basin B Future Tie-In MH

[Max Stage = 44.837]



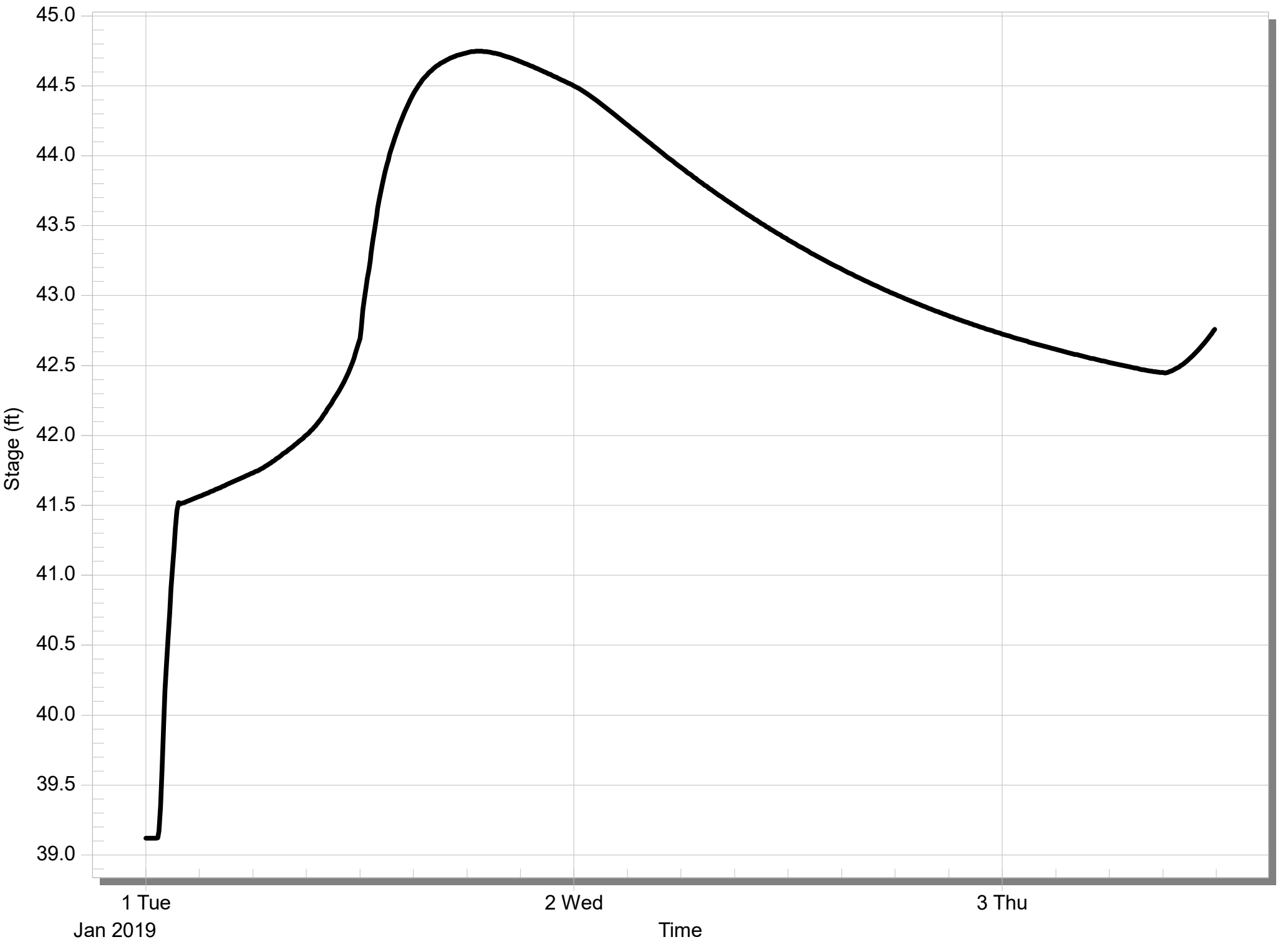
Conduit 60-In SD Pipe 3 from Basin B Future Tie-In MH to MH

[Max Flow = 97.8091][Max Velocity = 4.94]



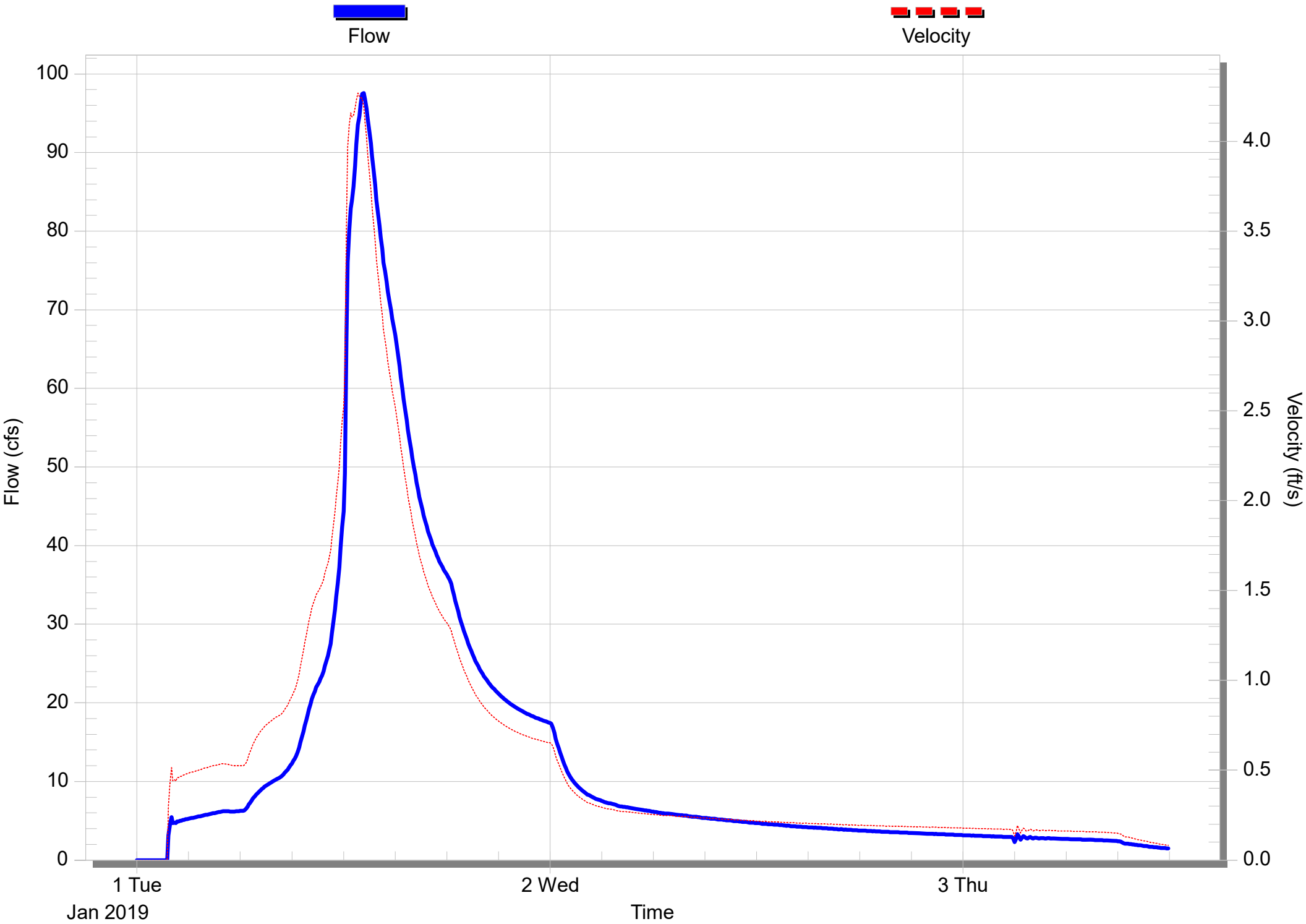
Node - MH

[Max Stage = 44.748]



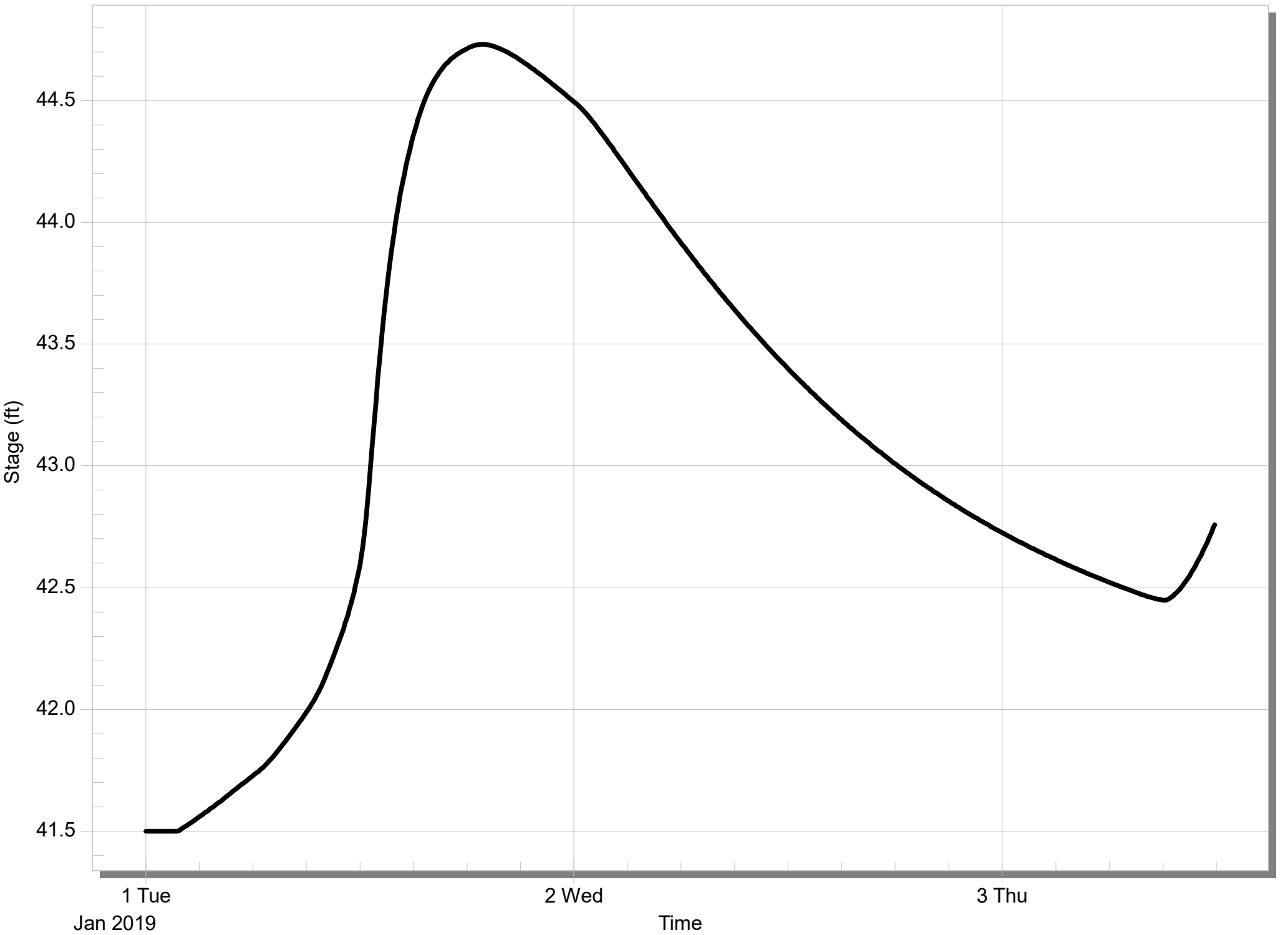
Conduit 60-In SD Pipe 4 from MH to Mahon Pond

[Max Flow = 97.5495][Max Velocity = 4.27]



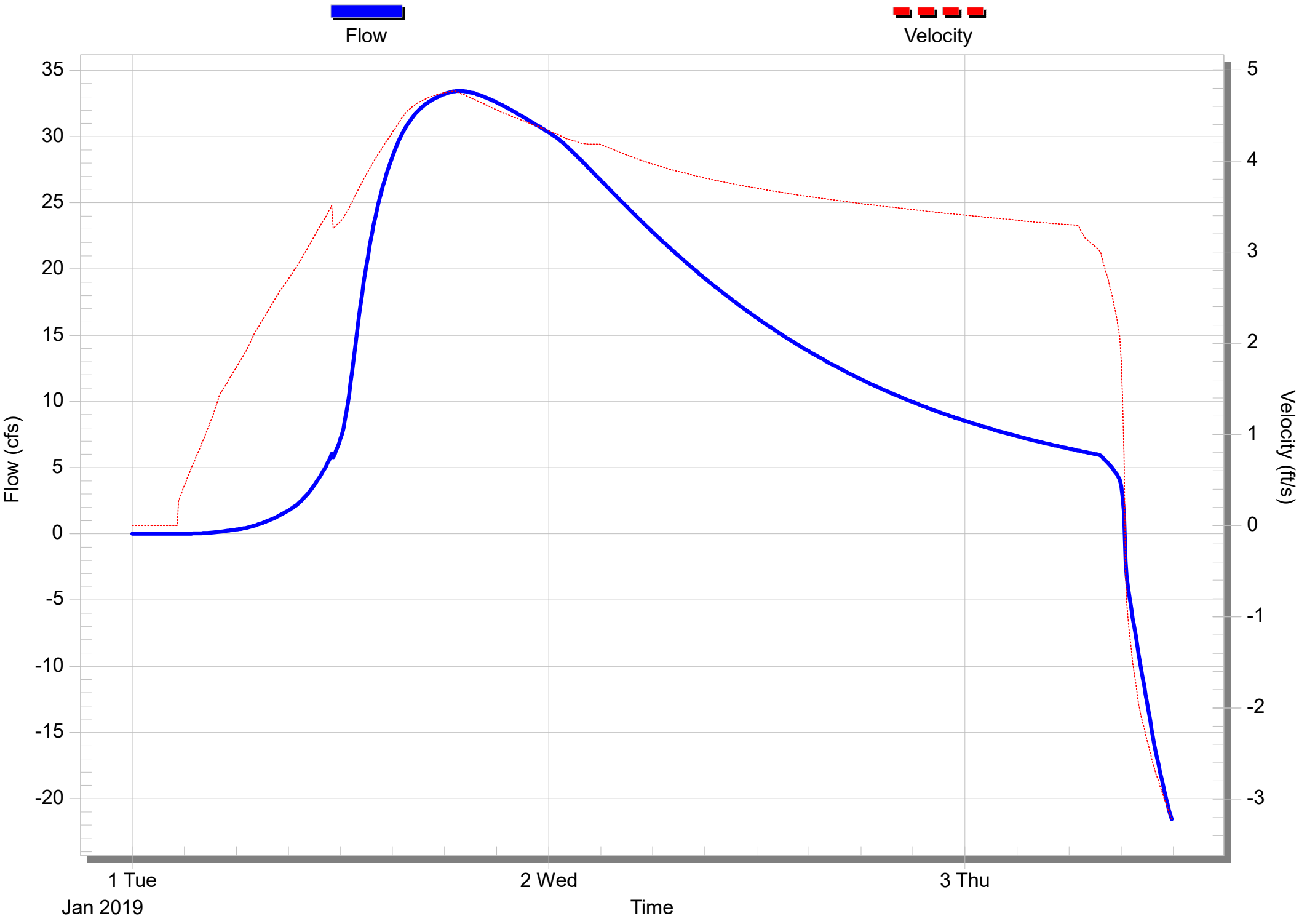
Node - Mahon Pond

[Max Stage = 44.730]



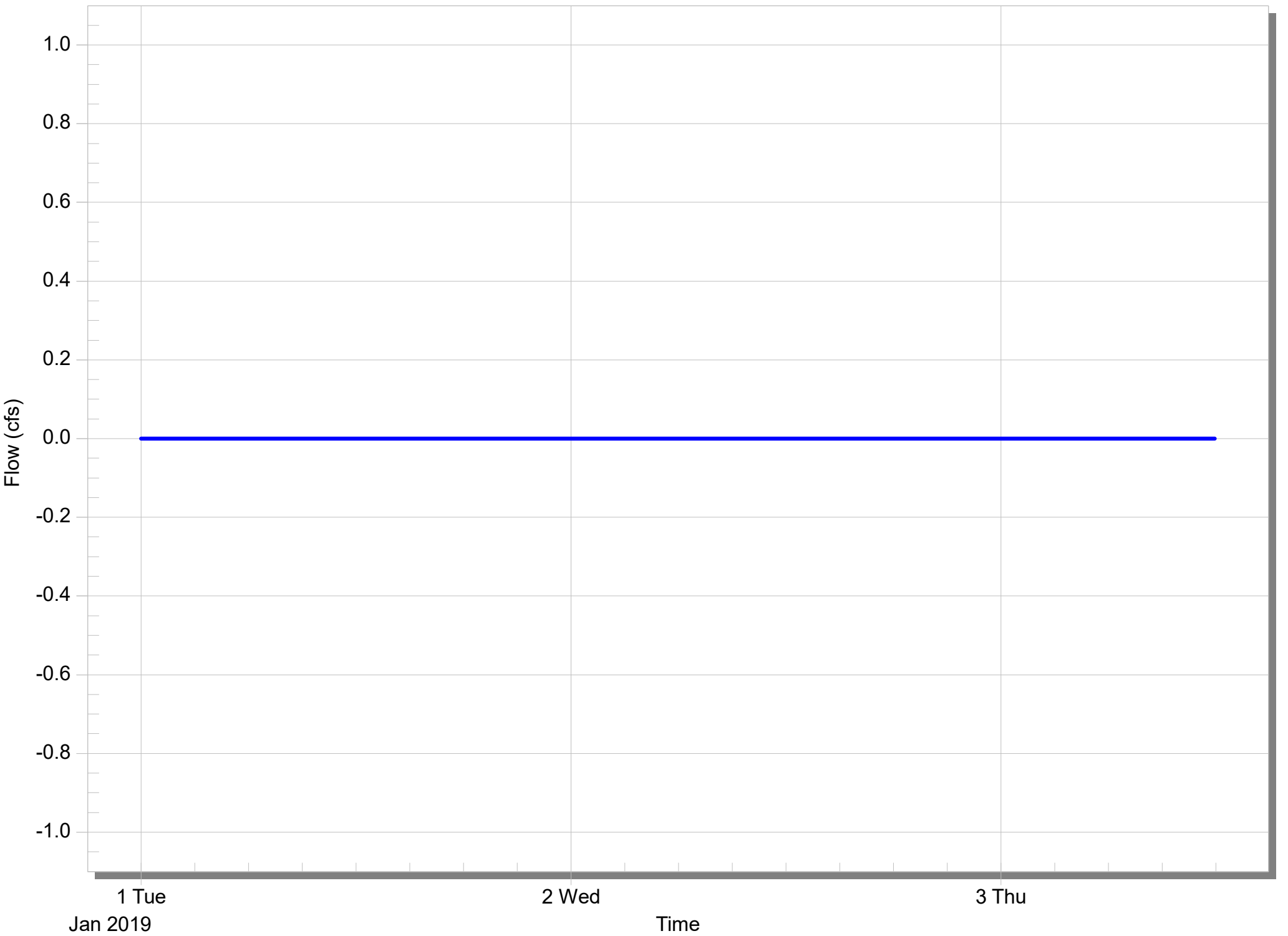
Conduit Mahon Pond 36-In Culvert from Mahon Pond to Channel to Deer Creek

[Max Flow = 33.4435][Max Velocity = 4.77]



Diversion Mahon Pond Outfall Weir from Mahon Pond to Channel to Deer Creek

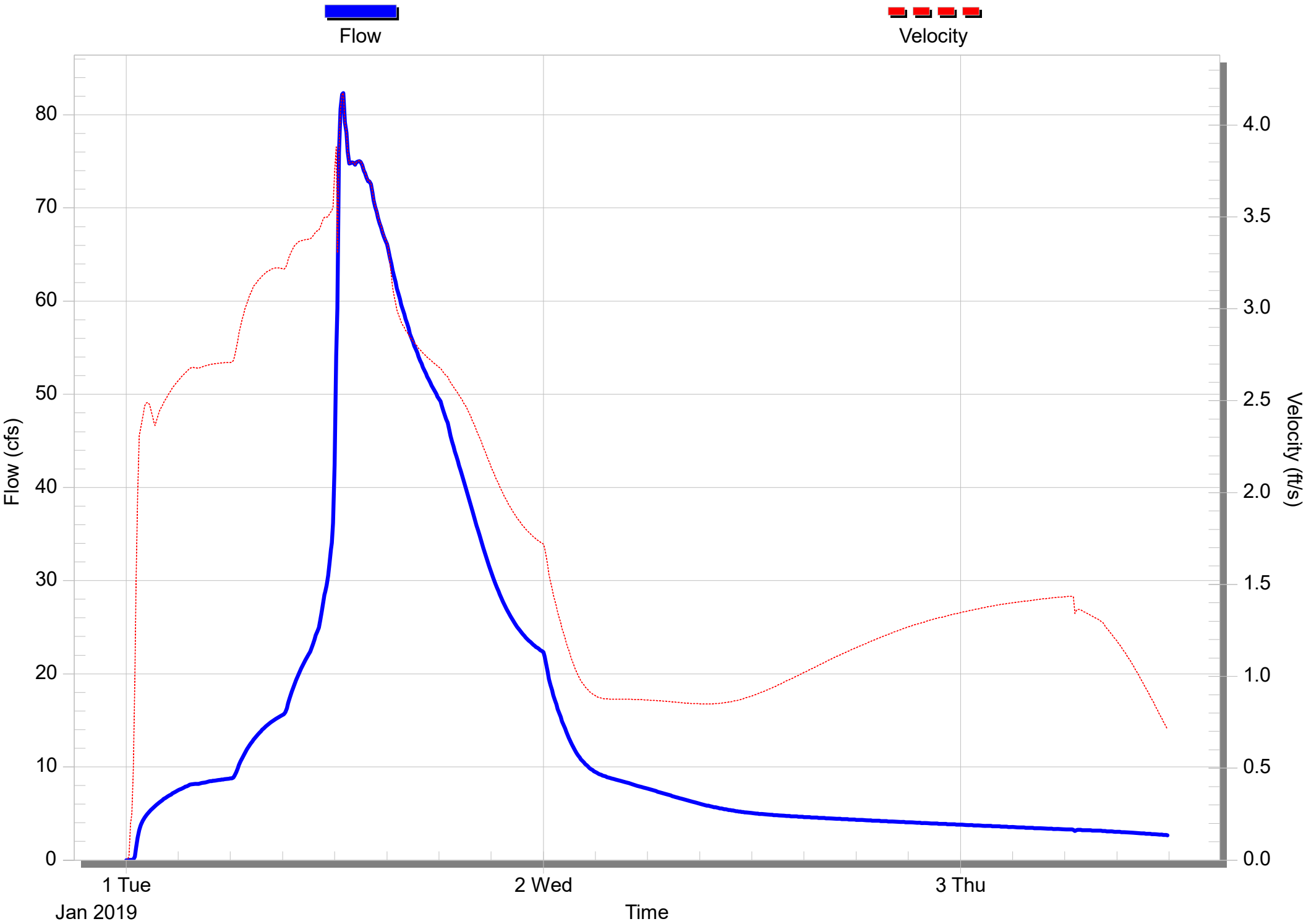
[Max Flow = 0.0000]



**100-Year Analysis
Alternative 1**

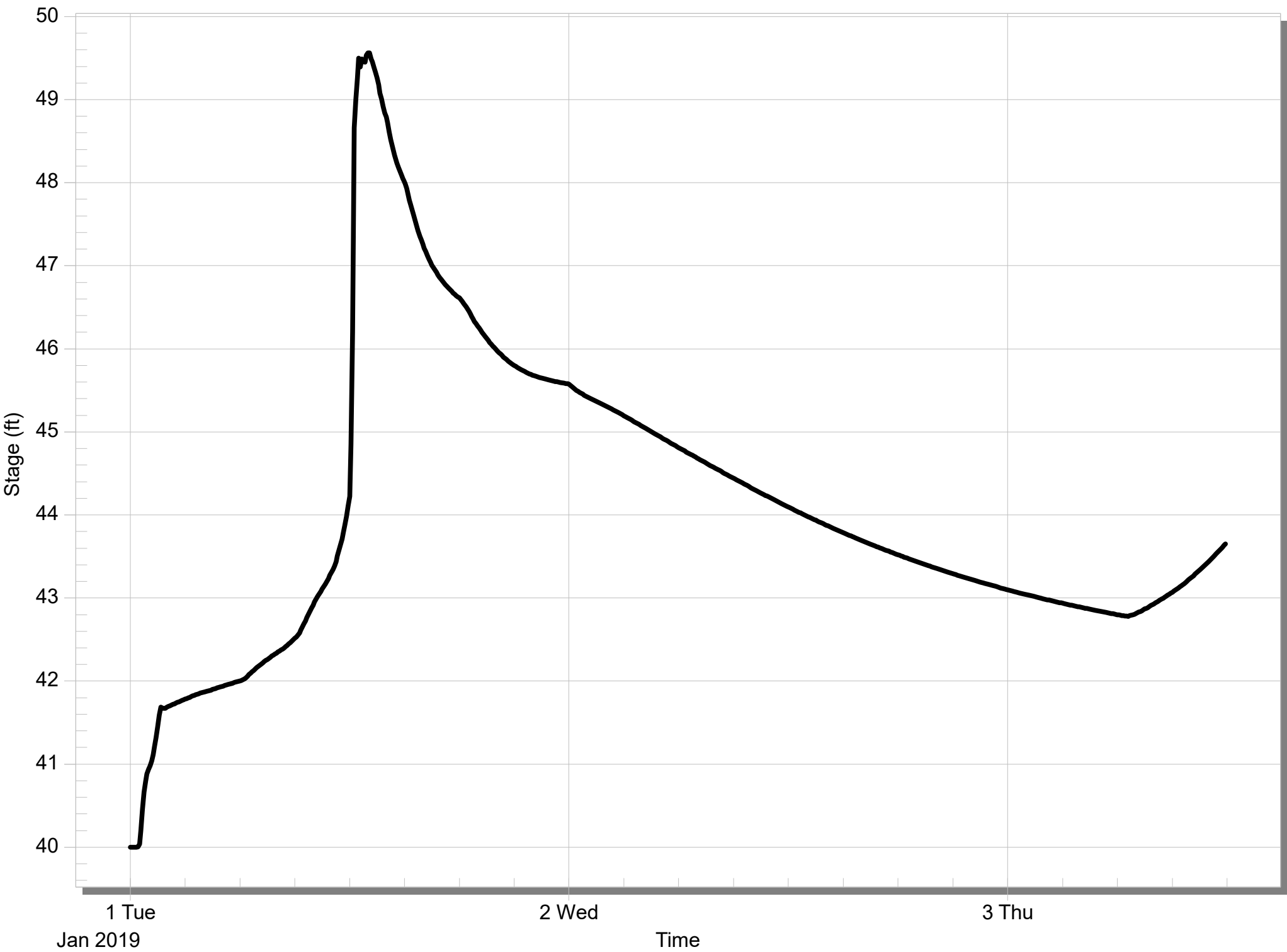
Conduit 60-In SD 1 from Kubota Tie-In MH to Panattoni Tie-In MH

[Max Flow = 82.3214][Max Velocity = 4.17]



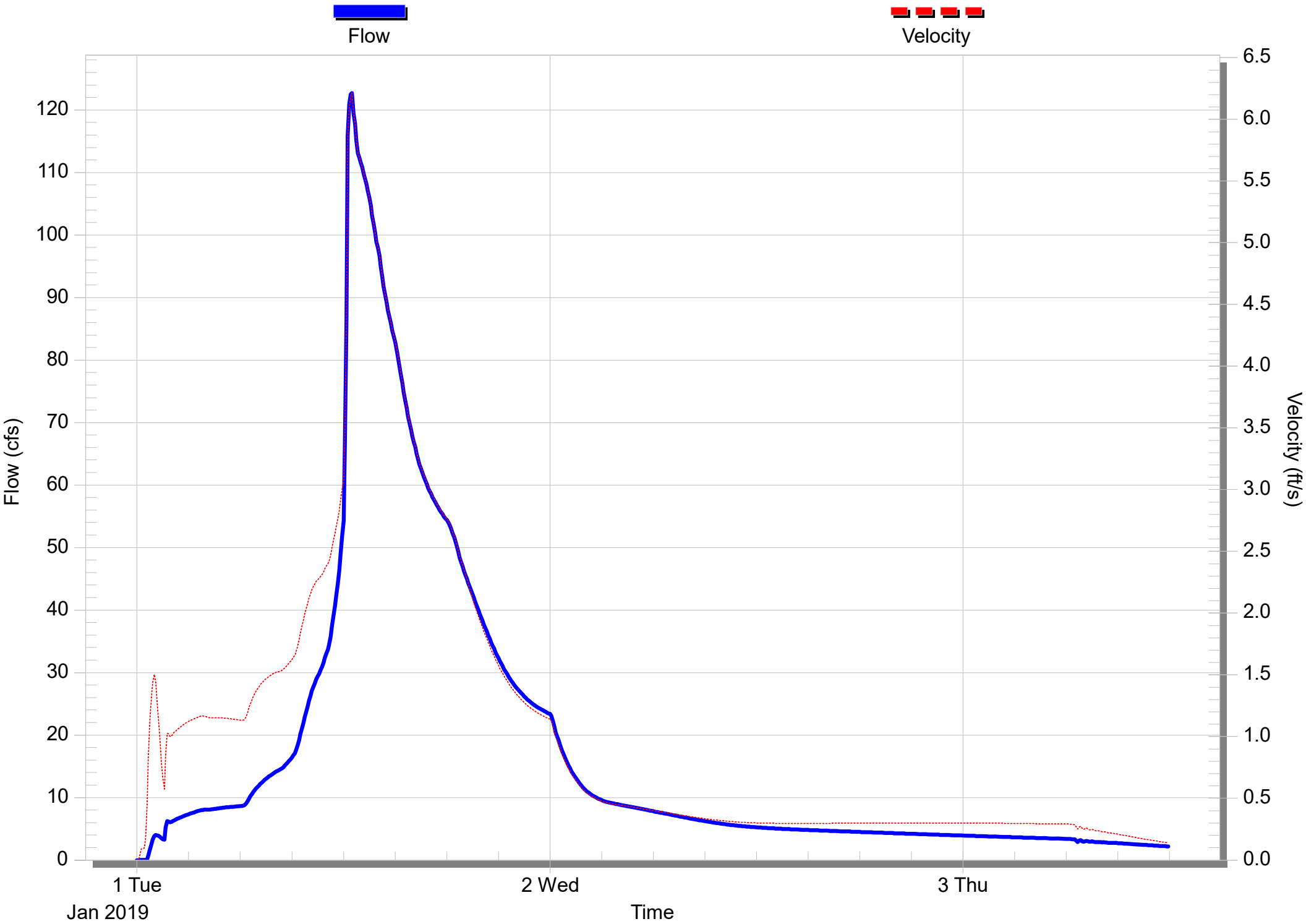
Node - Panattoni Tie-In MH

[Max Stage = 49.562]



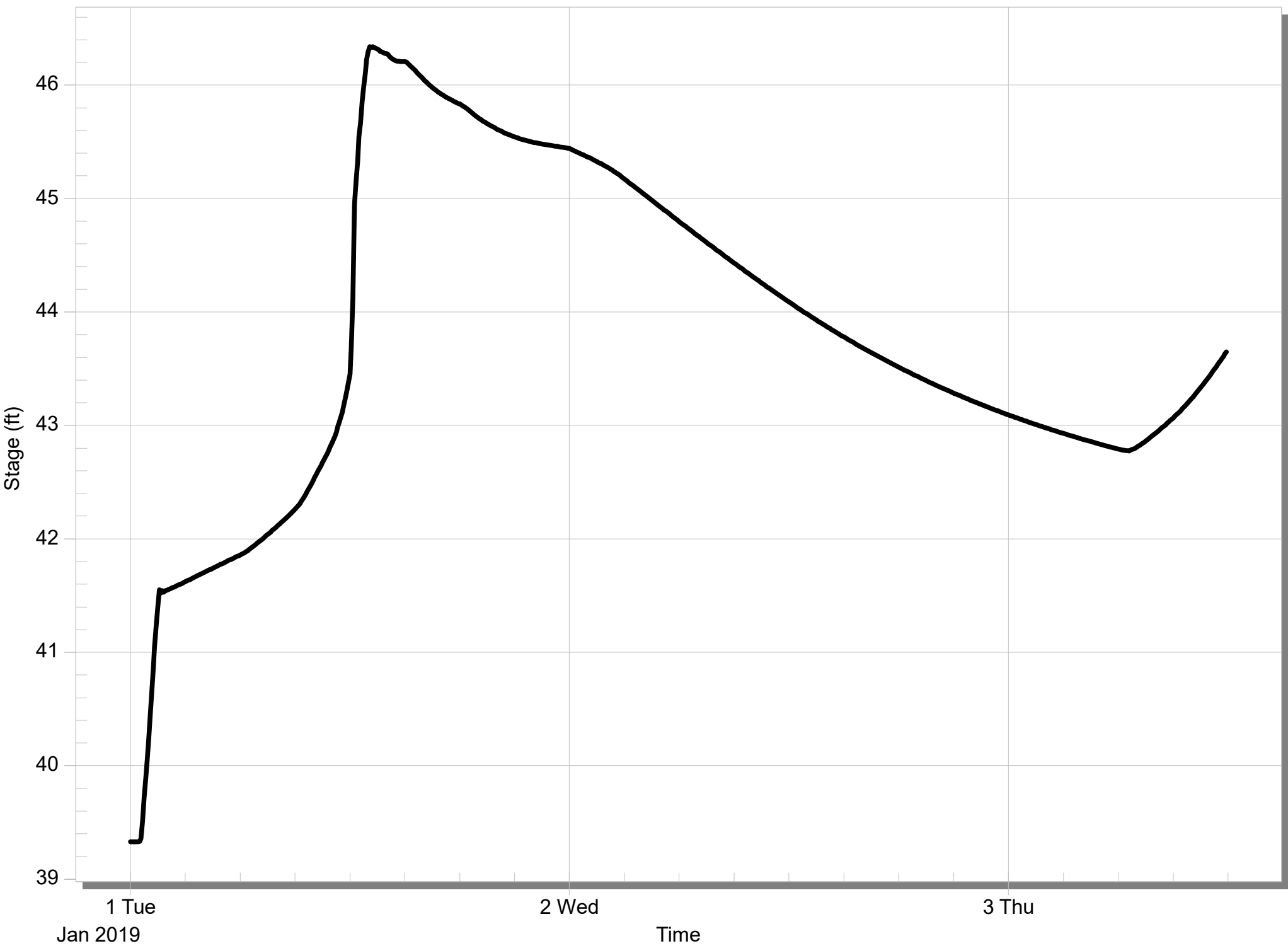
Conduit 60-In SD Pipe 2 from Panattoni Tie-In MH to Basin B Future Tie-In MH

[Max Flow = 122.6873][Max Velocity = 6.21]



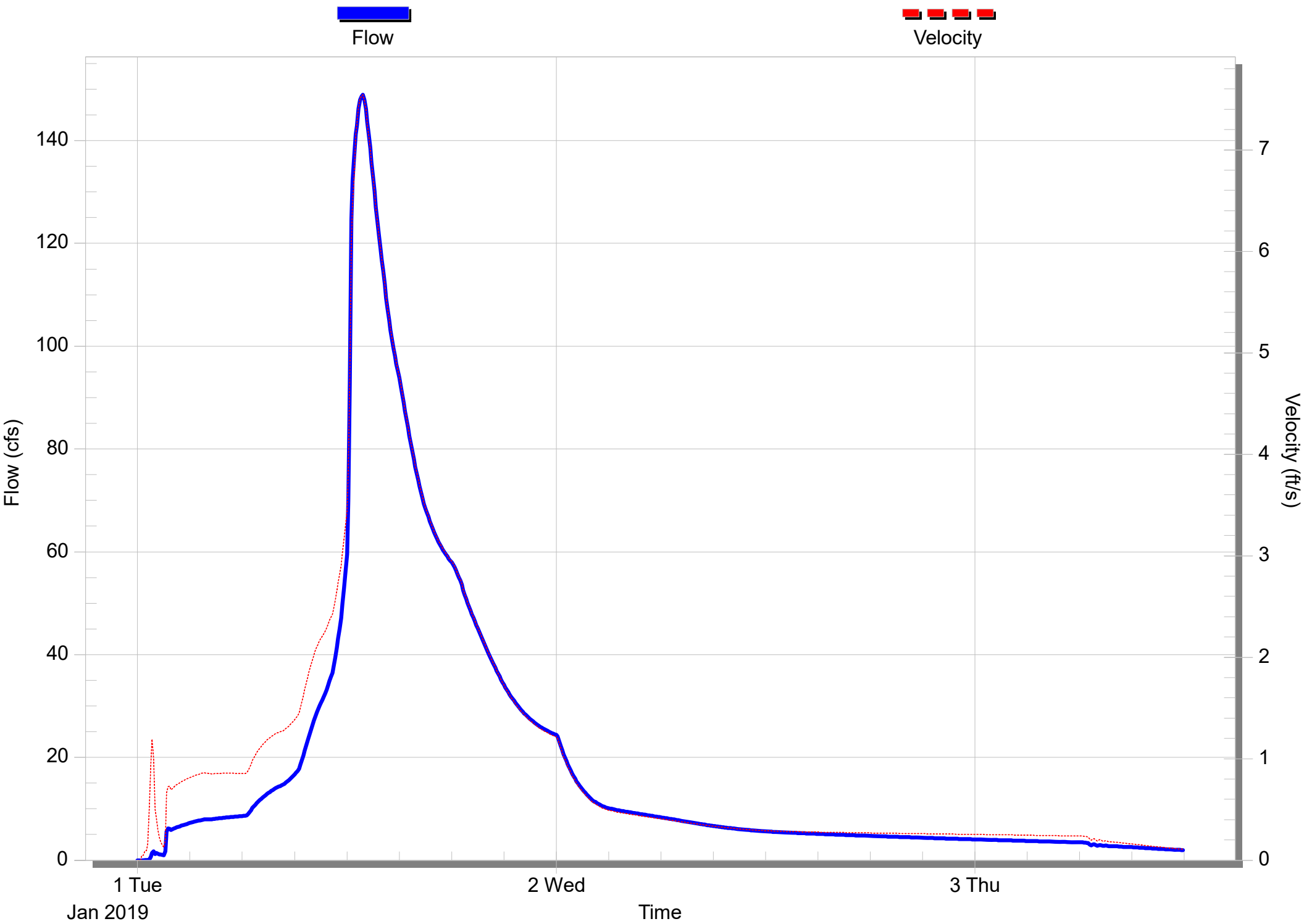
Node - Basin B Future Tie-In MH

[Max Stage = 46.339]



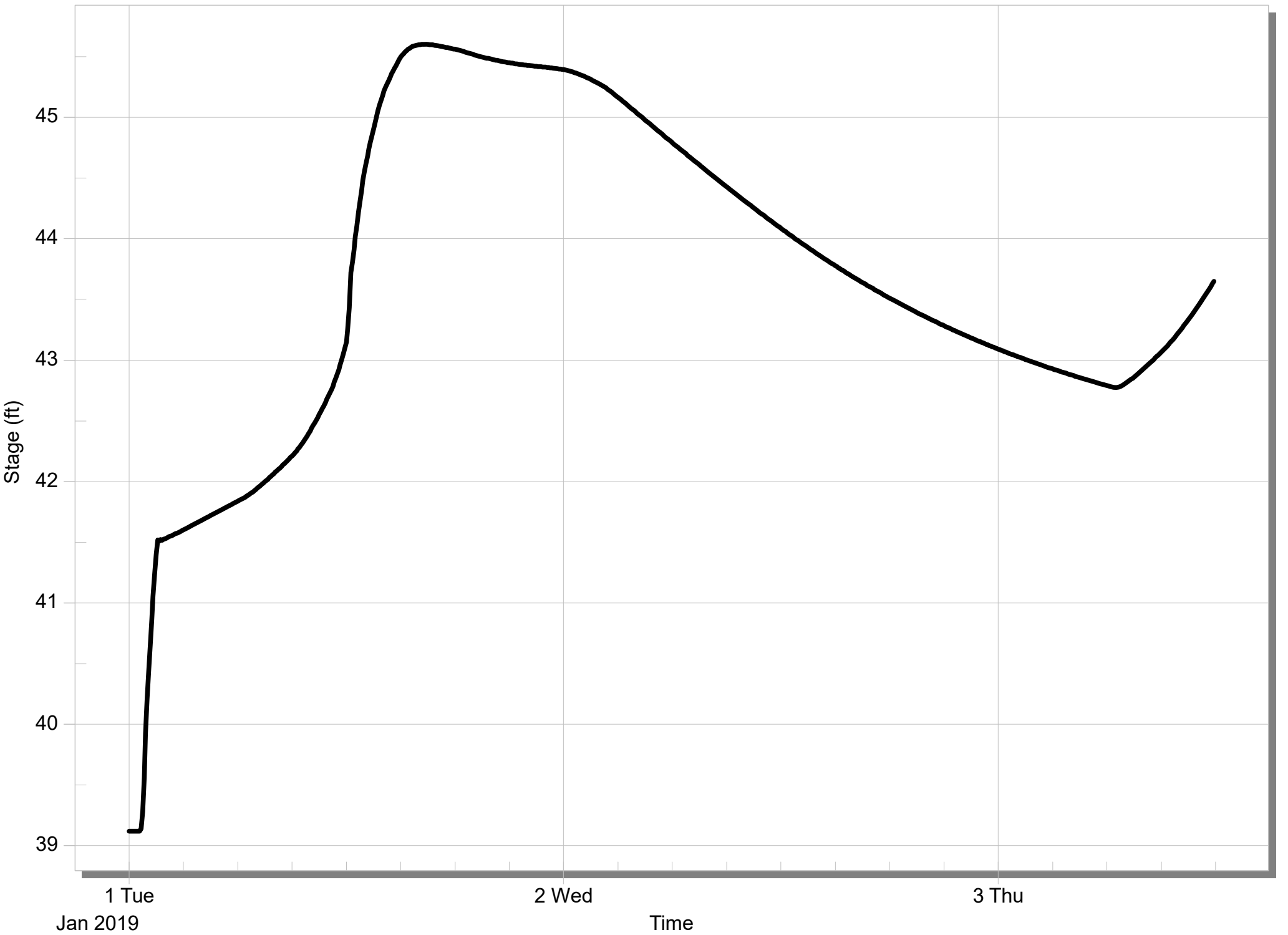
Conduit 60-In SD Pipe 3 from Basin B Future Tie-In MH to MH

[Max Flow = 148.8934][Max Velocity = 7.54]



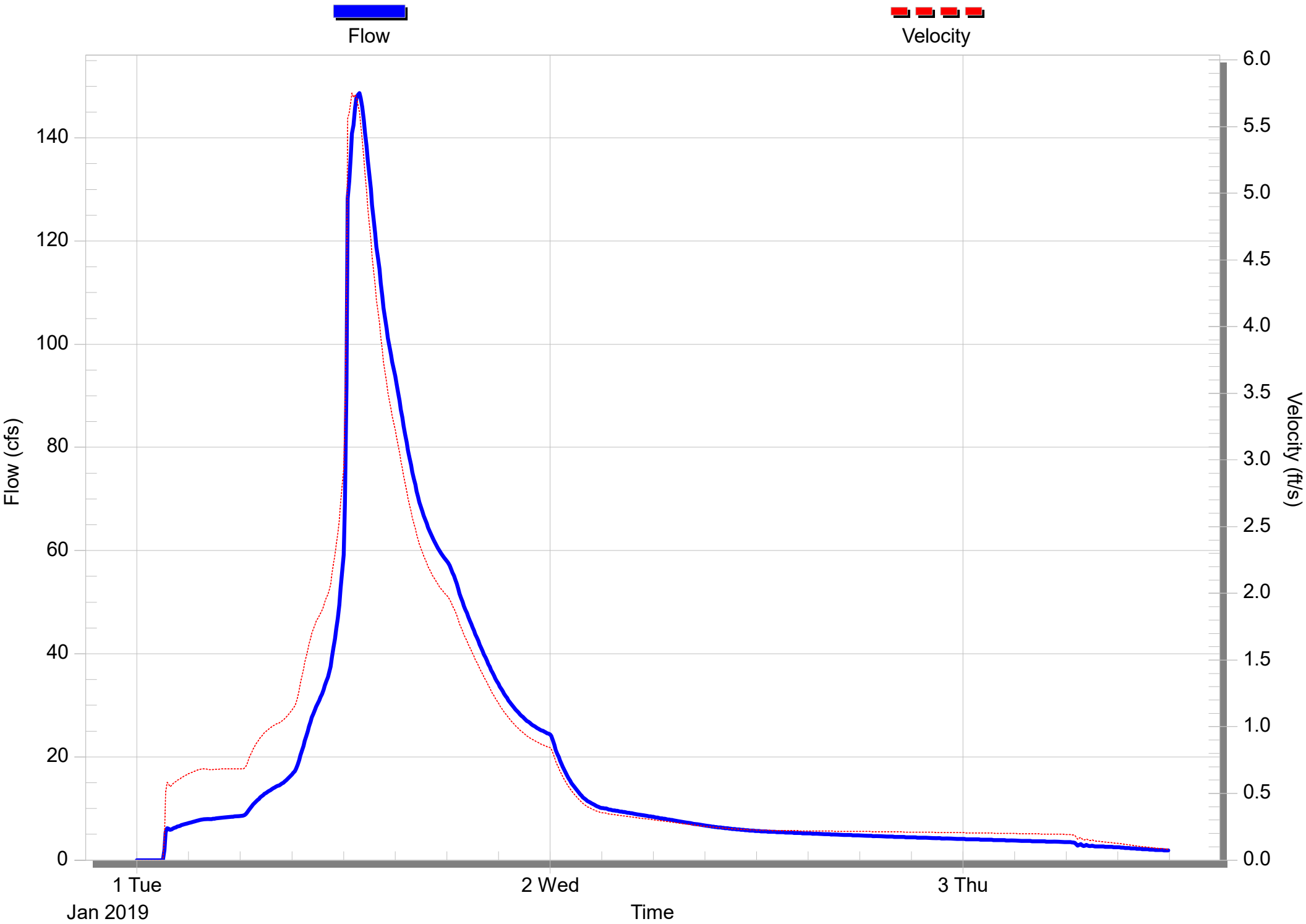
Node - MH

[Max Stage = 45.602]



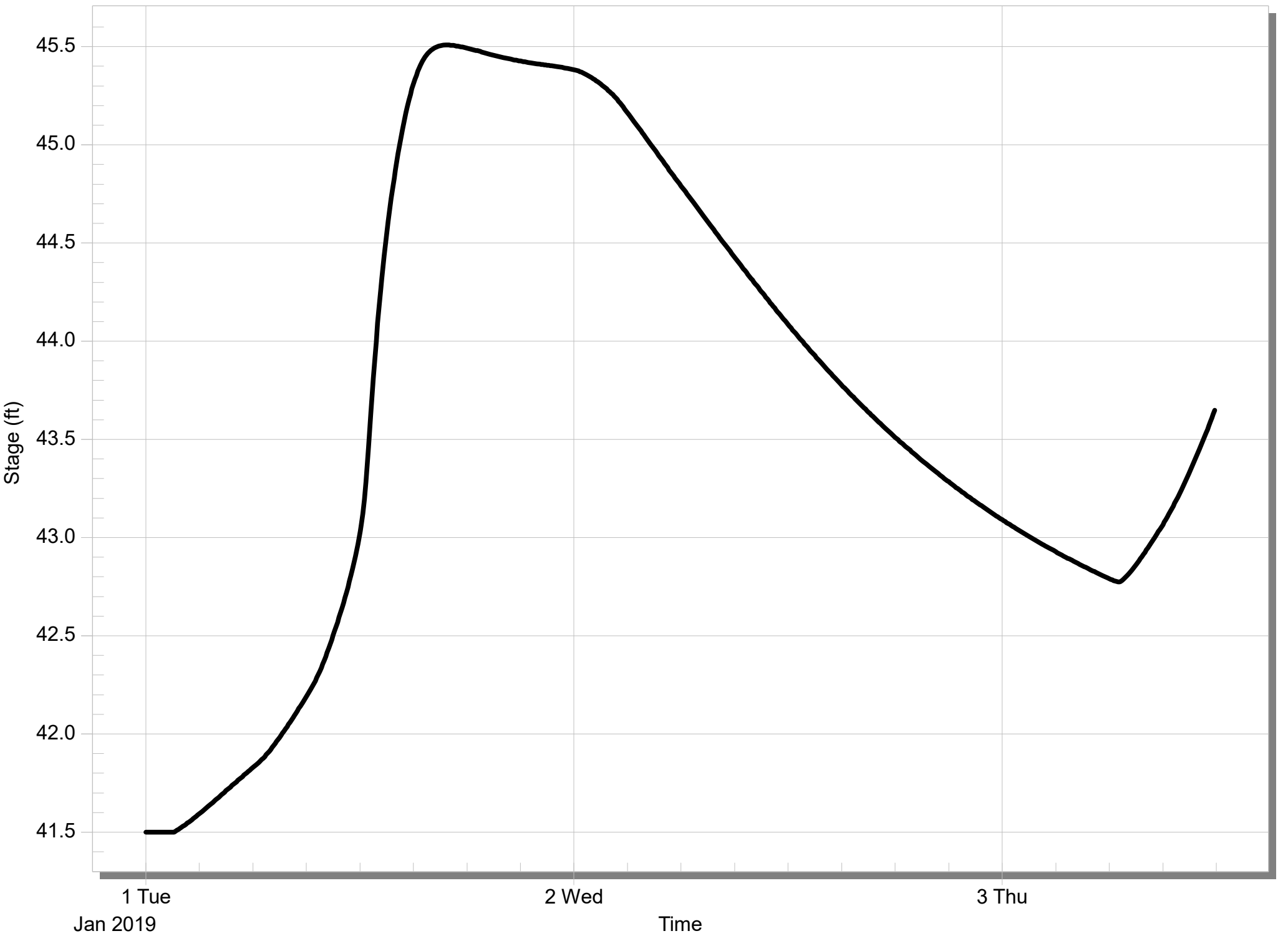
Conduit 60-In SD Pipe 4 from MH to Mahon Pond

[Max Flow = 148.6521][Max Velocity = 5.75]



Node - Mahon Pond

[Max Stage = 45.508]

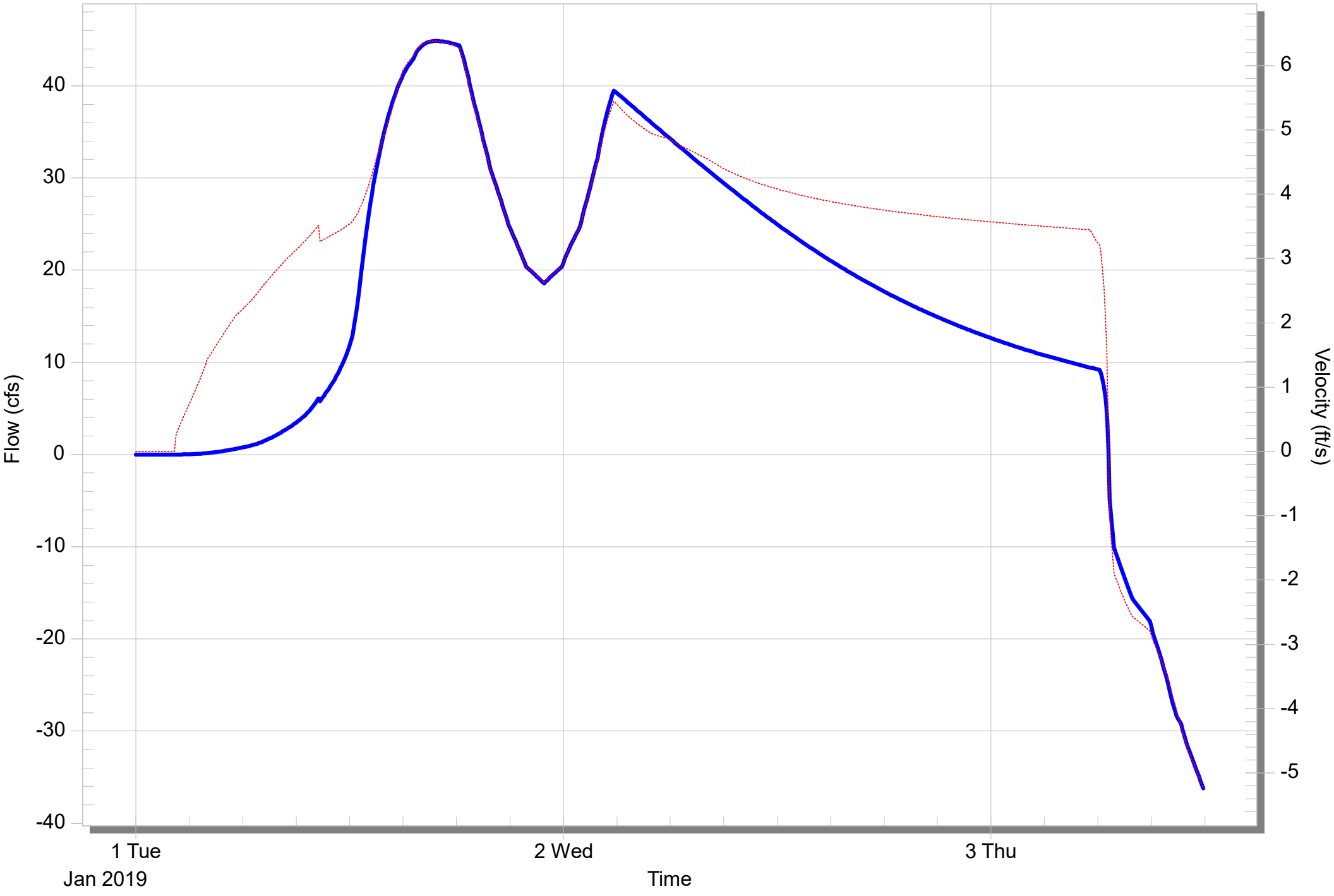


Conduit Mahon Pond 36-In Culvert from Mahon Pond to Channel to Deer Creek

[Max Flow = 44.8597][Max Velocity = 6.38]

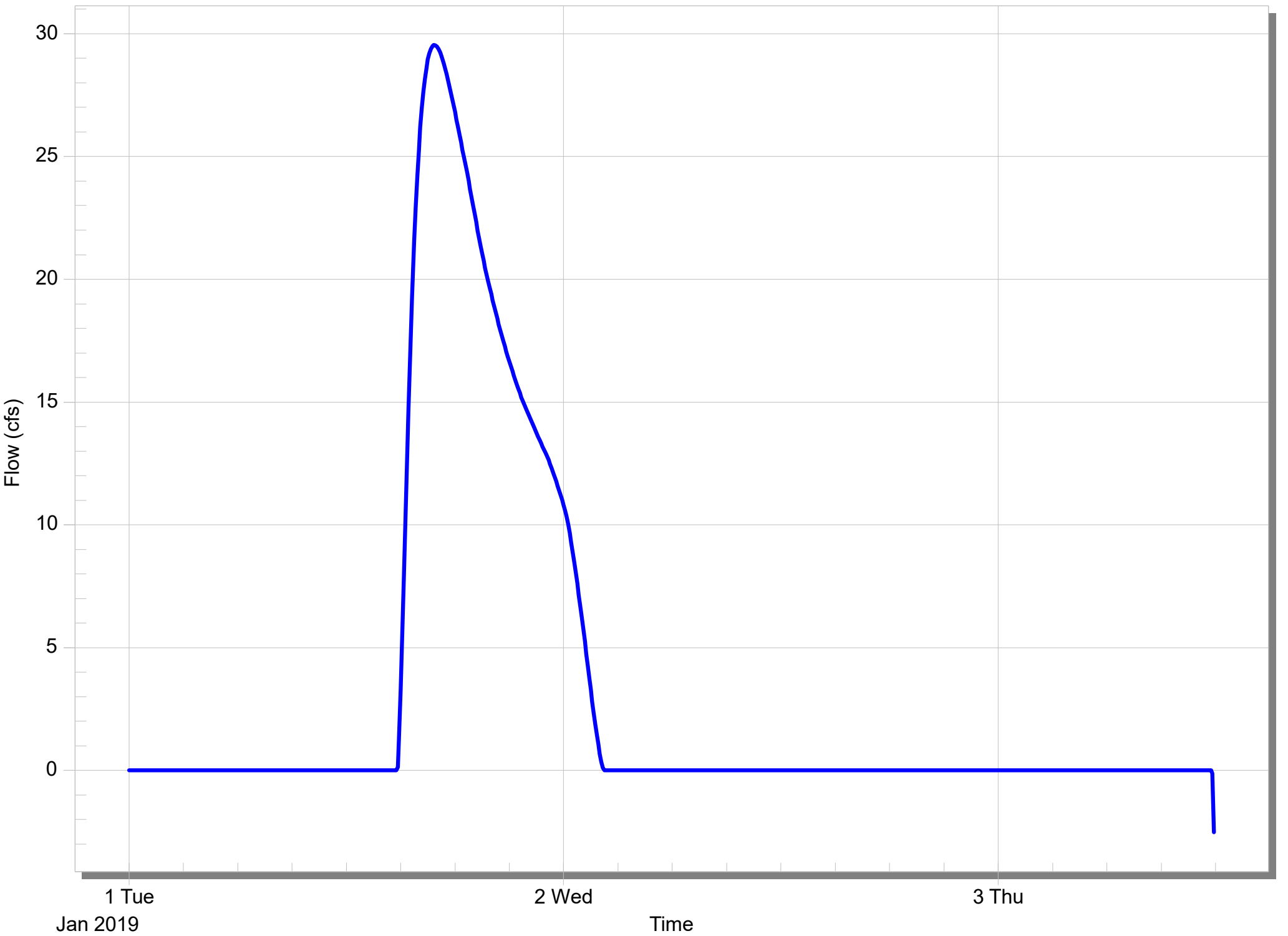
Flow

Velocity



Diversion Mahon Pond Outfall Weir from Mahon Pond to Channel to Deer Creek

[Max Flow = 29.5422]



APPENDIX C

Preliminary Cost Estimates

