

# Snyder/Edgewood Avenues Area Stormwater Improvements Project

Public Meeting #3  
May 1, 2019



# Agenda

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**Welcome and  
Introductions  
(5 min.)**



**Presentation  
(45 min.)**

Recap of 2/28  
meeting

Review 4  
alternatives



**Discussion  
(30 min.)**

Discussion,  
question/answer

Compile feedback  
Ranking of  
alternatives



**Next Steps  
(10 min.)**

Outline  
next steps



# Recap

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- 10/2018 – City launched the project to identify options to manage stormwater to reduce flooding – storage, conveyance, infiltration.
- 11/29/18 – Public Meeting held to introduce project objectives.
- 2/28/19 – Public Meeting held to review and rank 10 potential solutions.



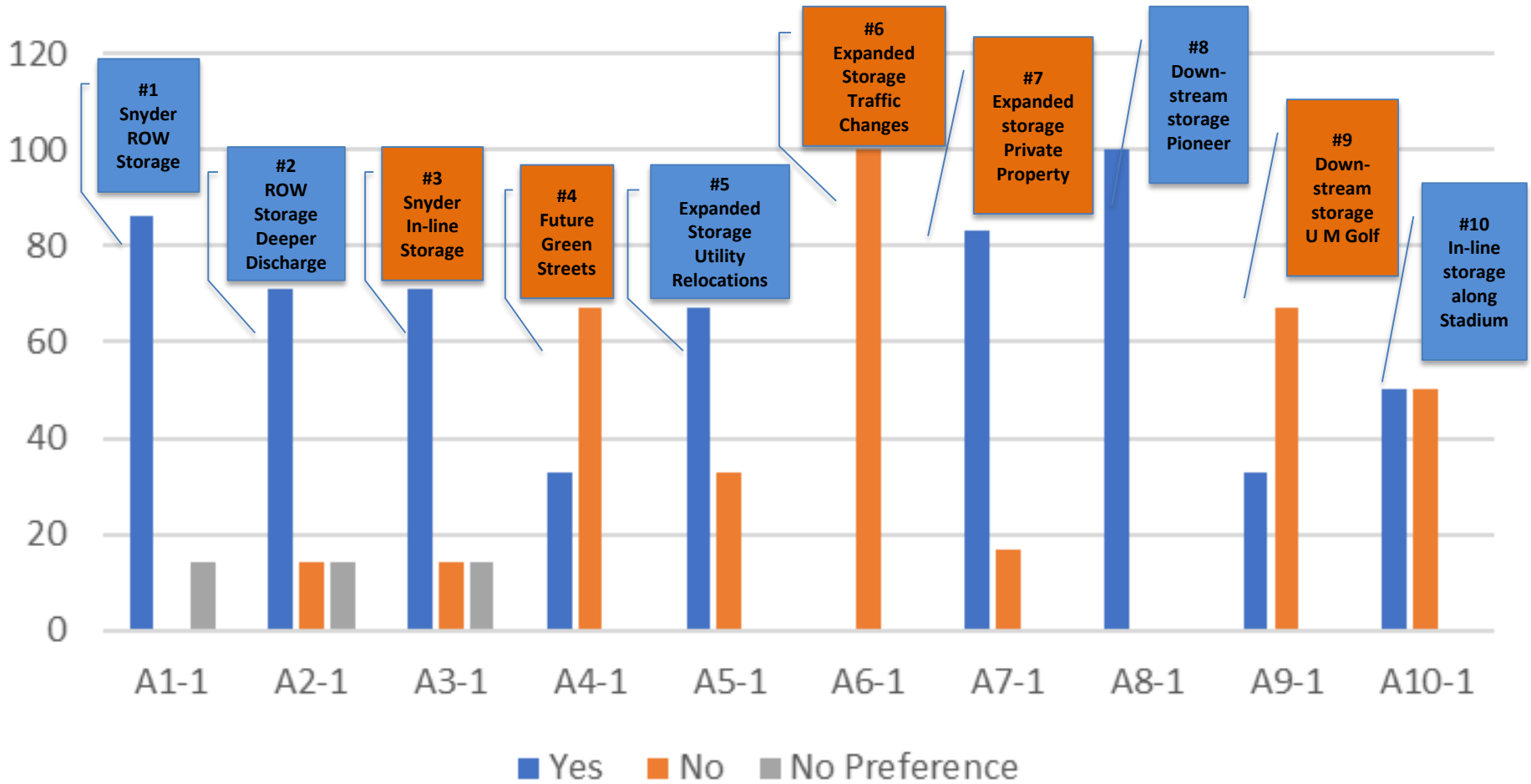
# Overview of Project Objectives

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- Identify options to manage stormwater to reduce flooding – storage, conveyance, infiltration.
- Use stormwater model to analyze impacts on flows and water levels.
- Design target is to keep peak hydraulic grade line (HGL) one foot below ground level.
- Volume requirements vary by location, but are in the range of 110,000 – 160,000 cubic feet (ft<sup>3</sup>) of storage for the 10-year, 12-hour storm standard.
- CIP includes estimated construction budget of about \$1.5M.



# Results of Alternatives Ranking – 2/28/19



Solution under consideration

Not currently being pursued

# Review of 10 Alternatives Summary

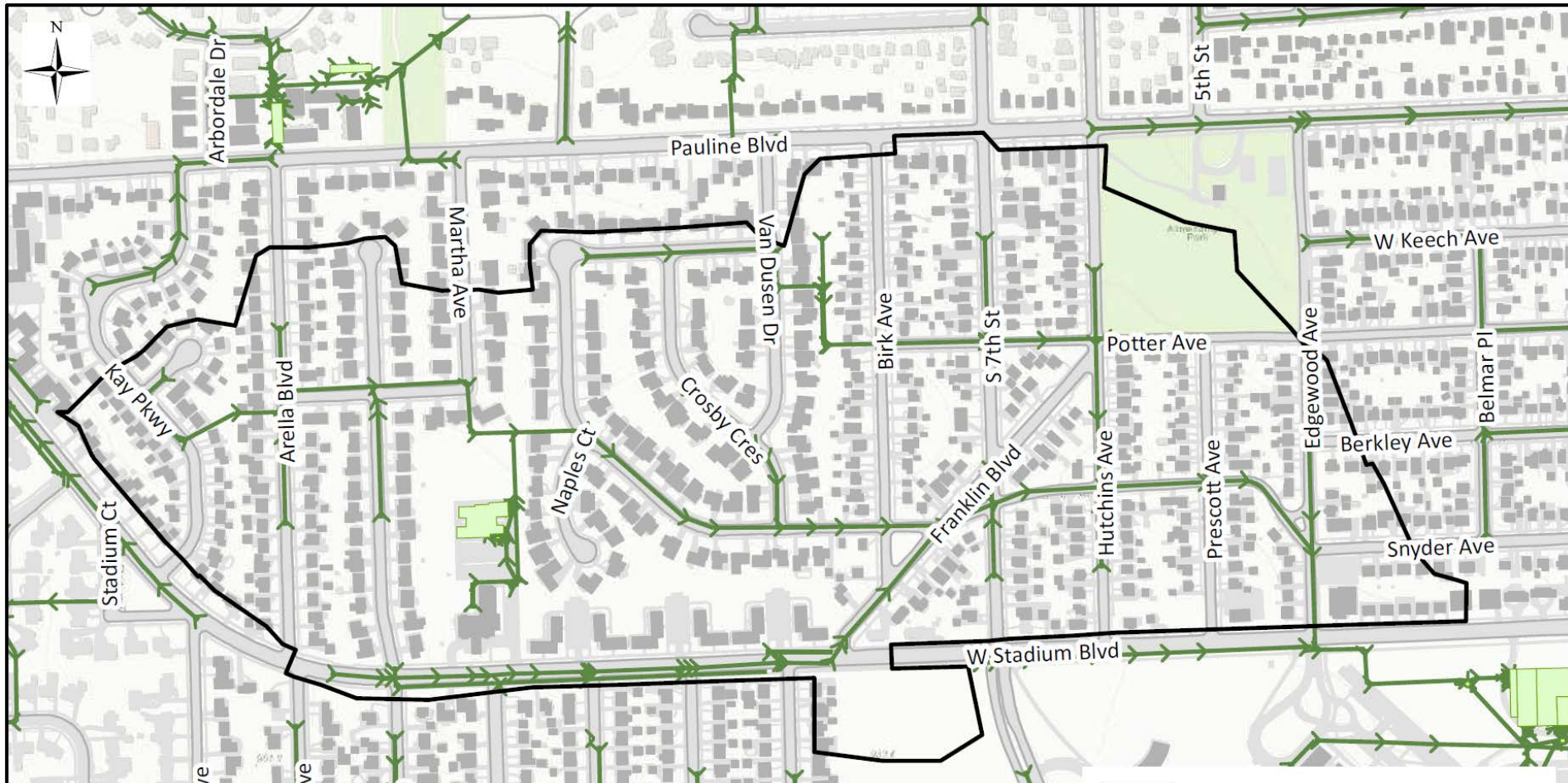
Alternative	Option Name	Description
<b>1</b>	<b>Snyder Right-of-Way (ROW) storage</b>	<b>Under consideration – modified with deeper storage</b>
<b>2</b>	<b>ROW storage with deeper discharge</b>	<b>Under consideration – combined with #5 (Deeper Edgewood)</b>
3	Snyder In-line Storage	Not pursued – too disruptive, lengthy pipe upsizing
4	Future Green Streets	Not pursued for this project, will incorporate where possible
<b>5</b>	<b>Expanded storage – Utility Relocations</b>	<b>Under consideration – combined with #2 &amp; 5 (Deeper Birk &amp; Edgewood)</b>
6	Expanded storage – Traffic Changes	Not pursued – open ponds and street closures
7	Expanded storage – Private Property Areas	Not pursued – not interested in acquiring private property
<b>8</b>	<b>Downstream Storage - Pioneer</b>	<b>Under consideration – Pioneer Basin Alternative</b>
9	Downstream Storage - UM Golf	Not pursued – expensive, impractical
<b>10</b>	<b>In-Line Storage along W. Stadium</b>	<b>Under consideration – combined with Snyder storage</b>



# 4 Revised Alternatives

<b>Alternative</b>	<b>Description</b>
Pioneer Basin	Previously Alt. #8. Improved Conveyance from Edgewood/Snyder.
Snyder ROW (Deeper Birk)	Modified Alt. #5. Expanded Franklin-Snyder storage w/utility relocate and deeper basin while accommodating large trees.
Snyder ROW (Deeper Edgewood)	Combined Alt. #2 & 5. Underground storage along Snyder spread across 4 basins.
Snyder + Stadium Storage	Modified Alt. #10. Underground storage along Snyder and W. Stadium Two phases of construction.





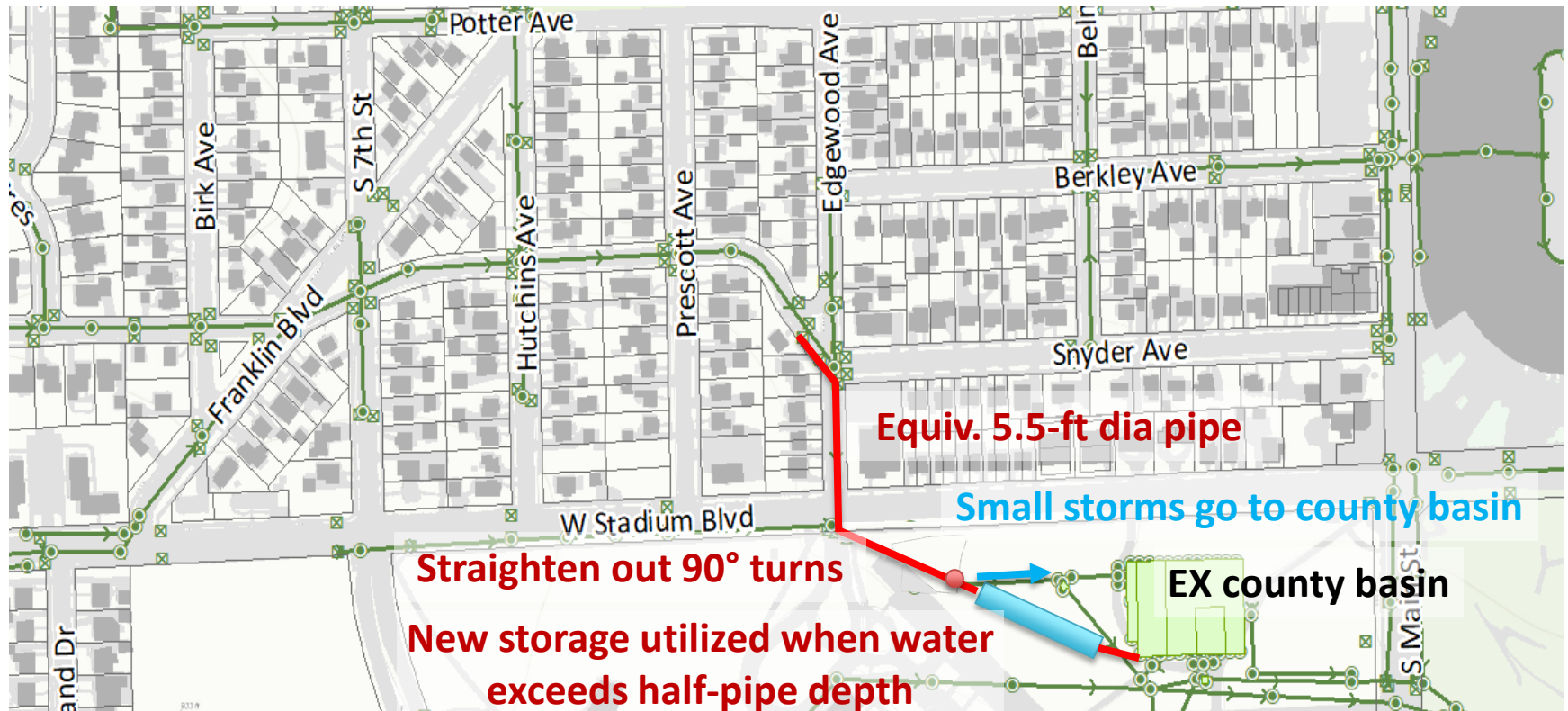
## General Construction Impacts – All Alternatives

- Streets will be reconstructed
- Driveways temporarily inaccessible
- Private utility relocation
- Water shut off up to 8 hrs. for water main relocation
- On street parking will be prohibited
- Sidewalks temporarily inaccessible
- Street trees will likely be affected



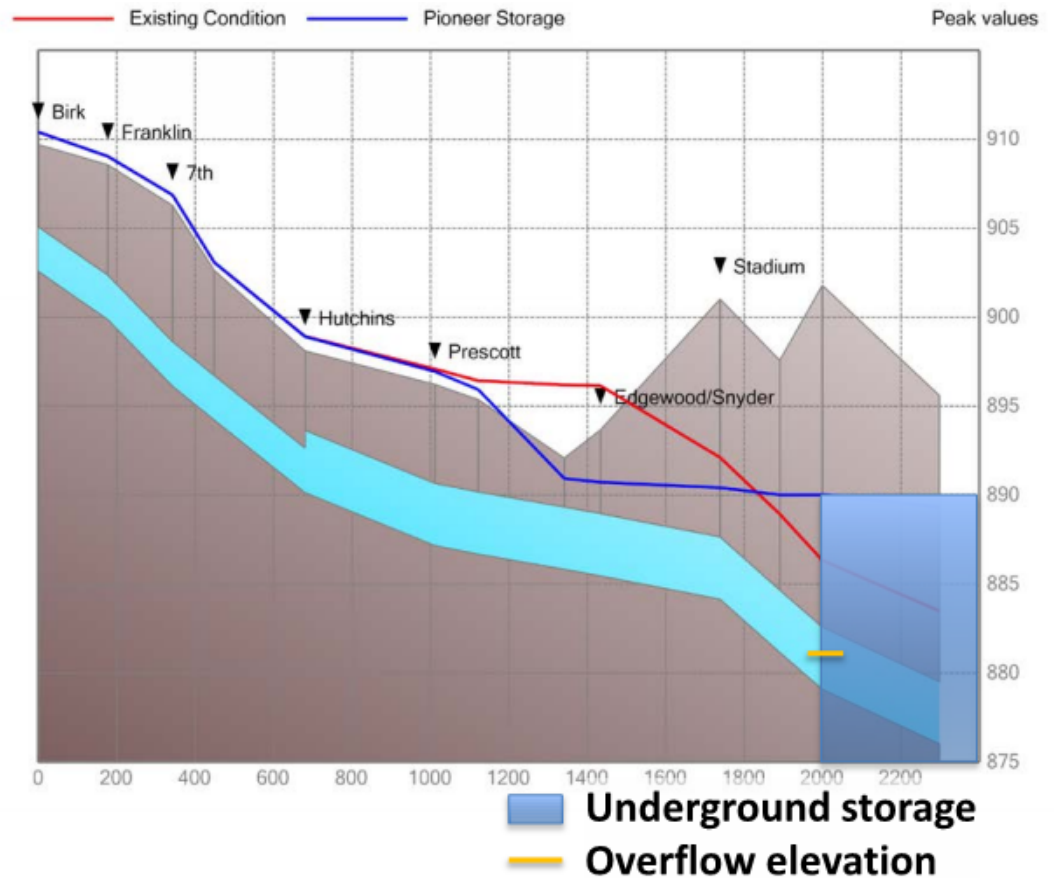
# Pioneer Basin Alternative

- Previously Alternative #8
- Improved conveyance out of Edgewood-Snyder
- 122,000 CF of storage located under soccer field, west of existing stormwater infiltration basin



# Pioneer Basin Alternative Profile View:

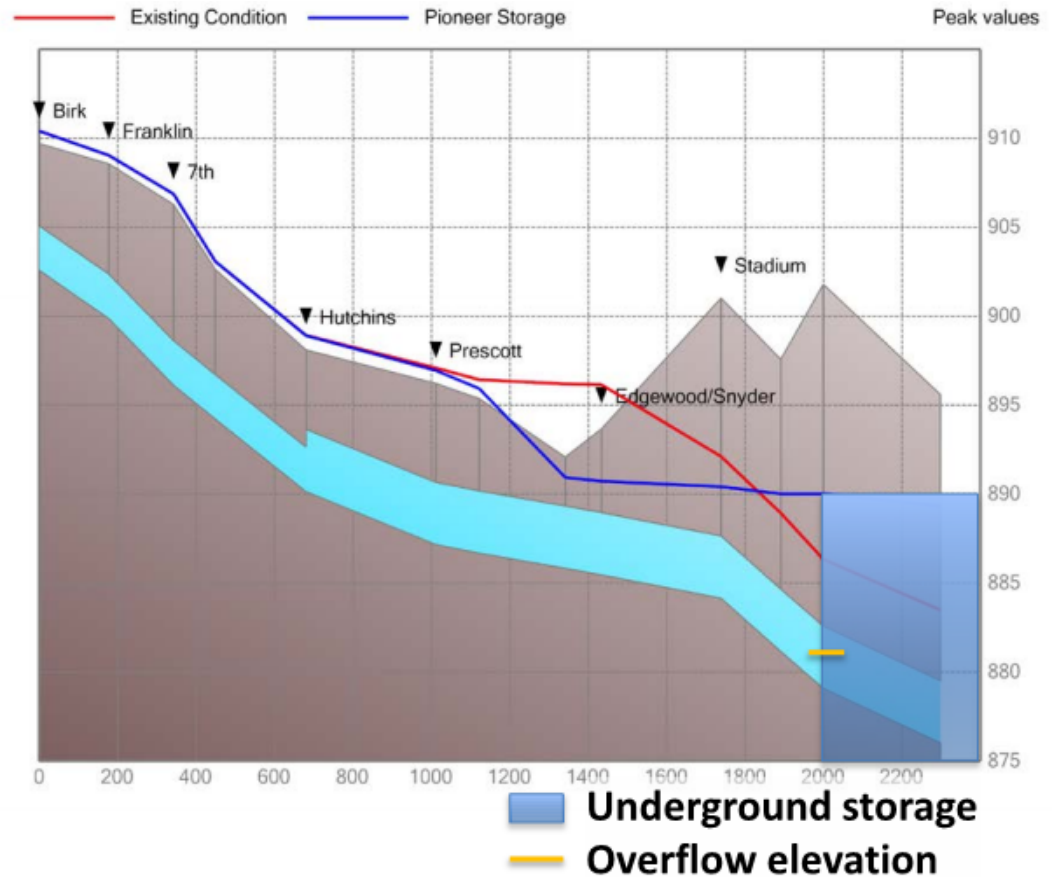
- Overland flow down Snyder Ave (west of Edgewood) is not addressed by storage south of Stadium
- Ponding is addressed for 10 year storm at Edgewood



# Pioneer Basin Alternative Impacts:

## Snyder/Edgewood from intersection to Stadium (2-3 months)

- 13 parcels within construction limits.
- Edgewood closed from Stadium through Snyder intersection. Snyder closed from west of Edgewood through the same intersection.
- Large/deep sanitary and storm sewer construction.



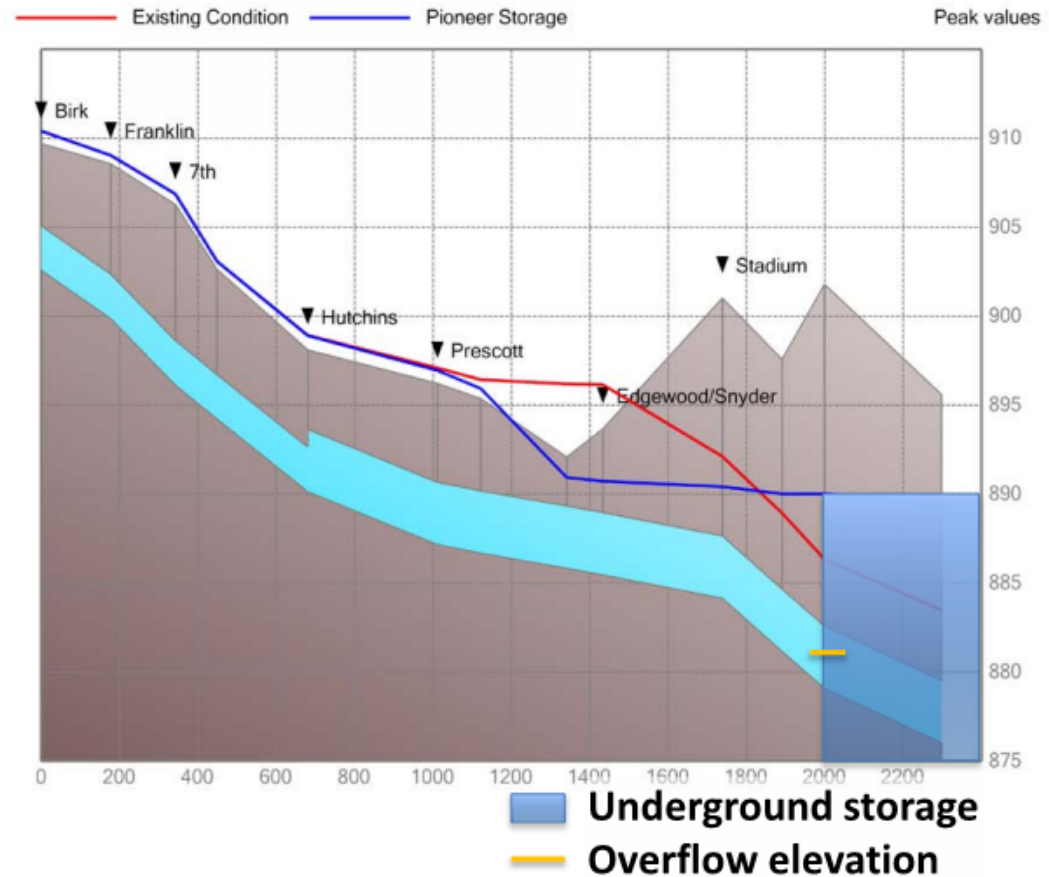
# Pioneer Basin Alternative Impacts:

## Stadium Blvd (0.5-1 month)

- Large storm sewer construction.
- Reduced lanes.

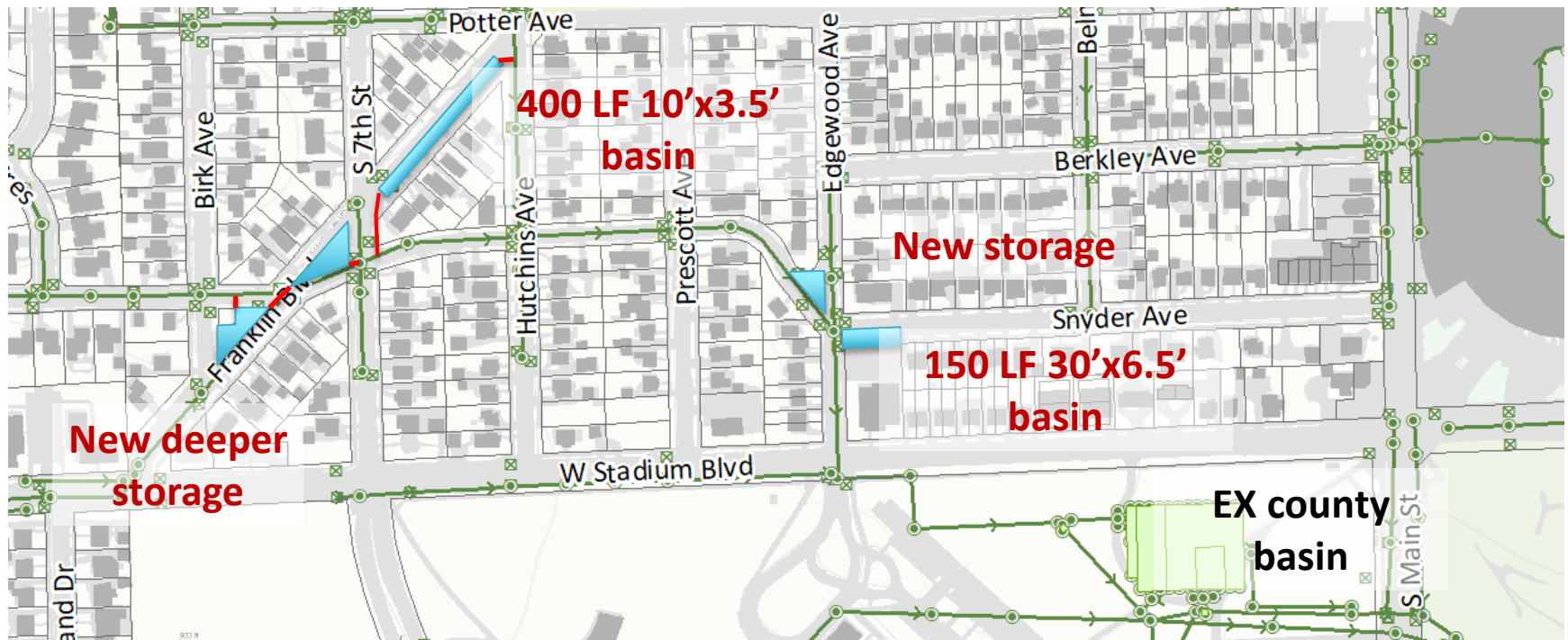
## Pioneer High School (3-4 months)

- Driveway closed during construction within it.
- Most of the work will be in grass areas and won't impact the Pioneer HS traffic. Some parking spaces in teacher's lot may be closed.
- Timing related to High School operations and Football parking will need to be studied further.



# Snyder ROW Storage (Deeper Birk) Alternative

- Modified Alternative #5
- Expanded storage at Franklin-Snyder with utility relocation and deeper basin while accommodating large trees
- Edgewood-Snyder storage with gas line relocation

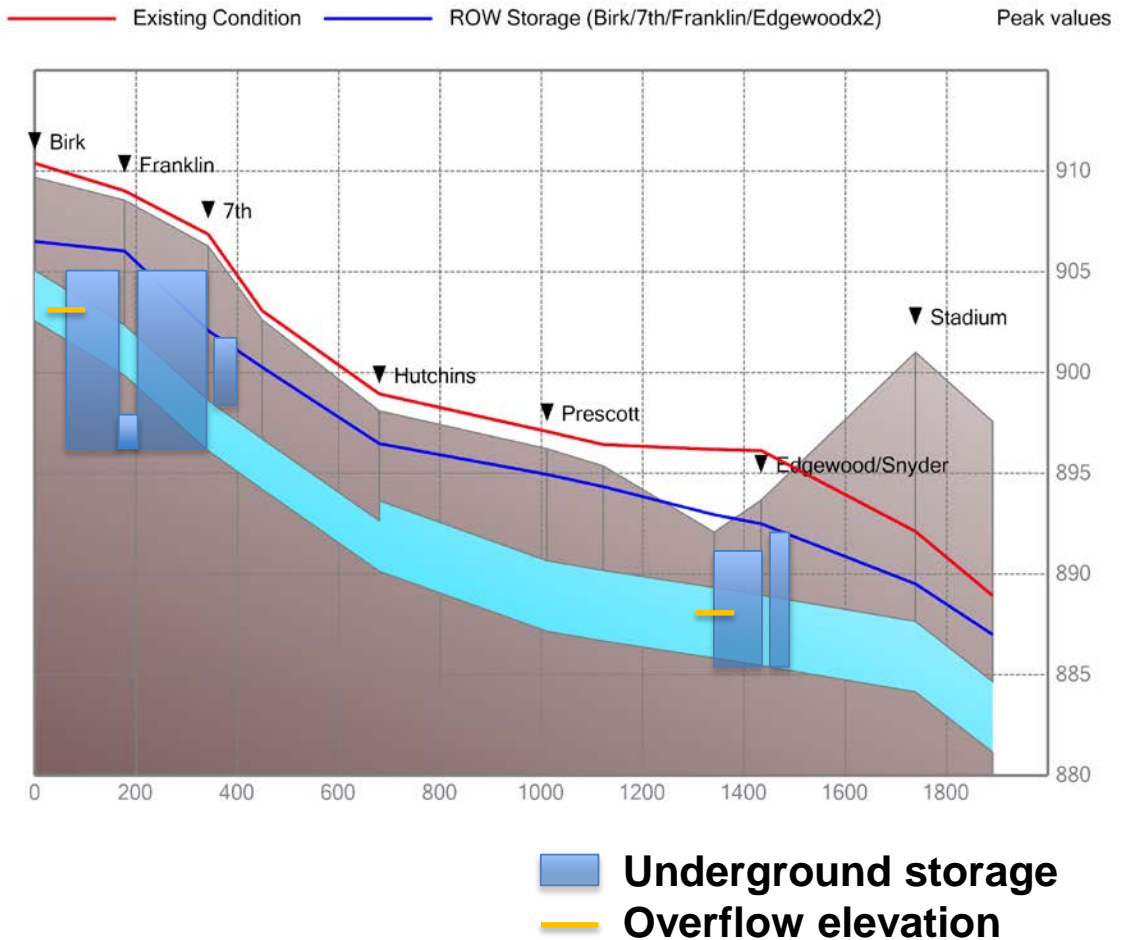


# Snyder ROW Storage (Deeper Birk)

## Profile View:

- <0.5 ft ponding at Edgewood-Snyder Intersection
- No overland flow

Intersection	Basin Vol (CF)
Birk	59,500
7 <sup>th</sup>	42,600
Franklin	14,000
Edgewood	13,300
Edgewood E	30,200
<b>Total</b>	<b>159,600</b>

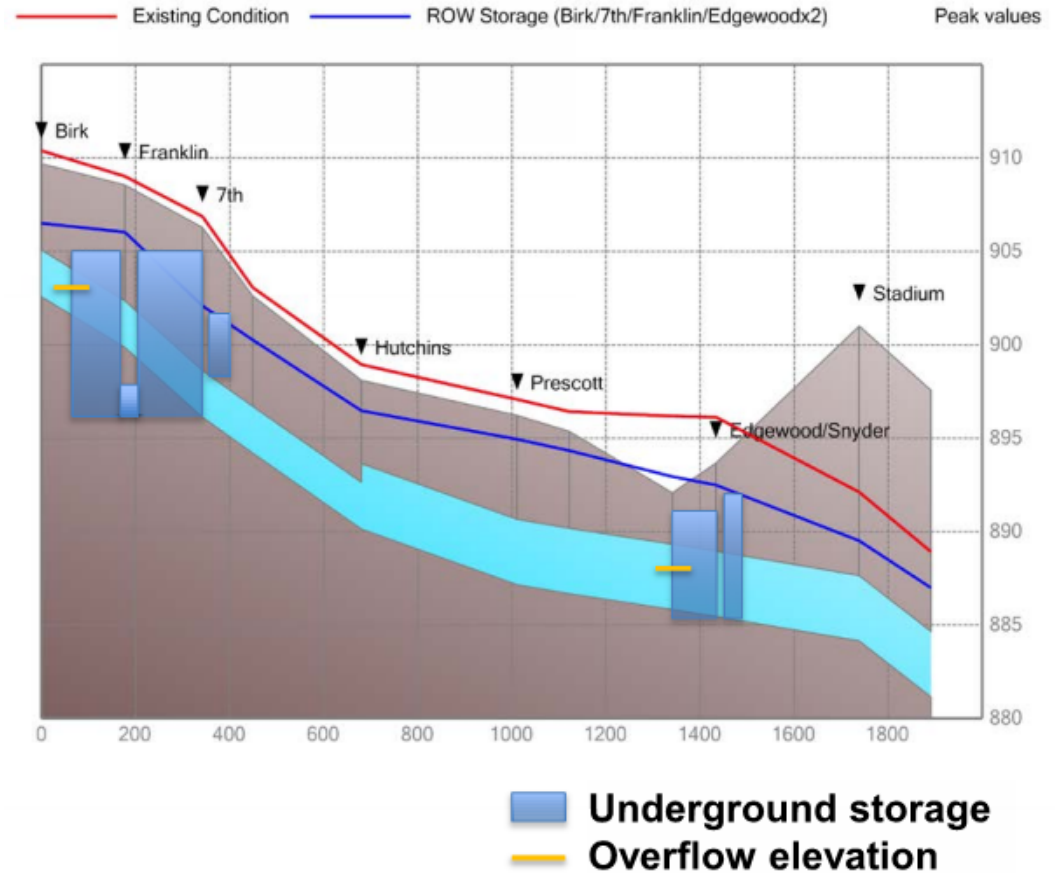


# Snyder ROW Storage (Deeper Birk)

## Impacts:

### Franklin/Snyder from Birk to 7th (3 months)

- 15 parcels within construction limits.
- Franklin closed from Birk to 7th. Snyder closed from Birk to 7th.
- Maintaining access to properties will be challenging, must be studied in more detail.
- Deep basin construction.
- Deep sanitary sewer construction.



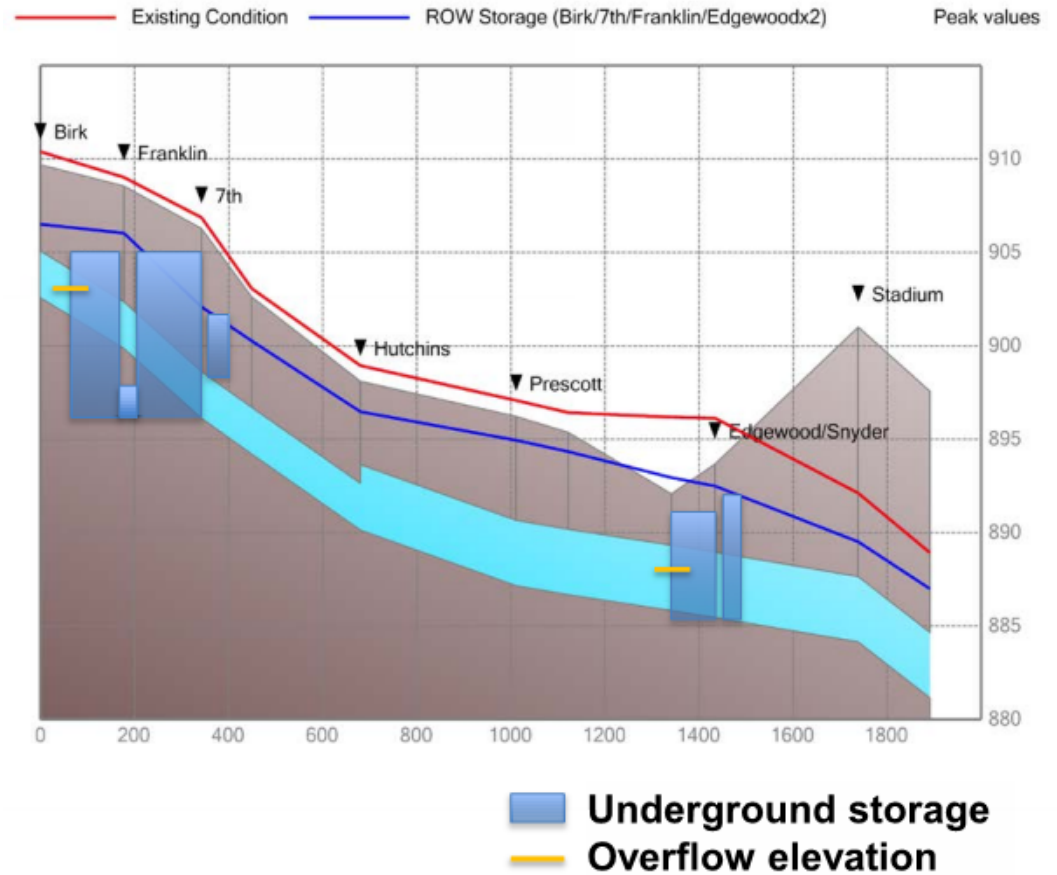
# Snyder ROW Storage (Deeper Birk)

## Impacts:

### Snyder/Edgewood Intersection

(2 months)

- 7 parcels within construction limits.
- Edgewood closed at the Snyder intersection. Snyder closed from west of Edgewood through the same intersection to east of the Church.
- Deep basin construction.
- Deep sanitary sewer construction.





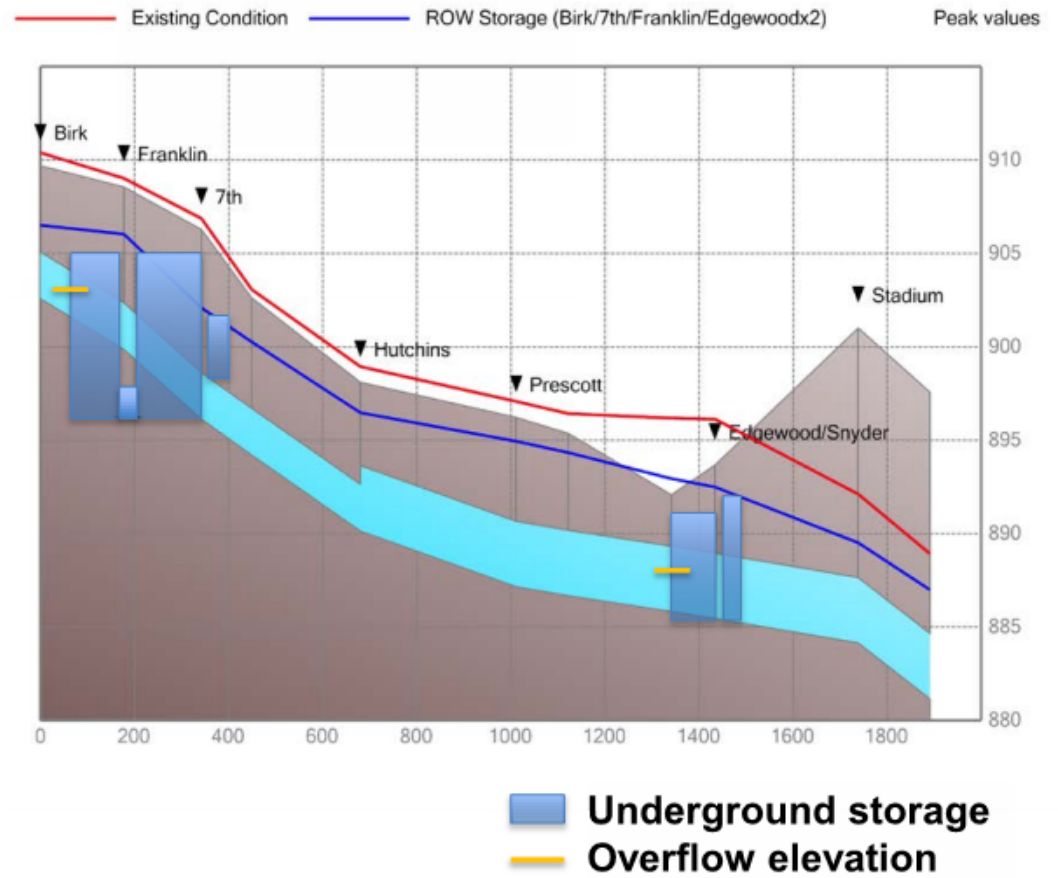
# Snyder ROW Storage (Deeper Birk)

## Impacts:

### Franklin from 7th to Hutchins

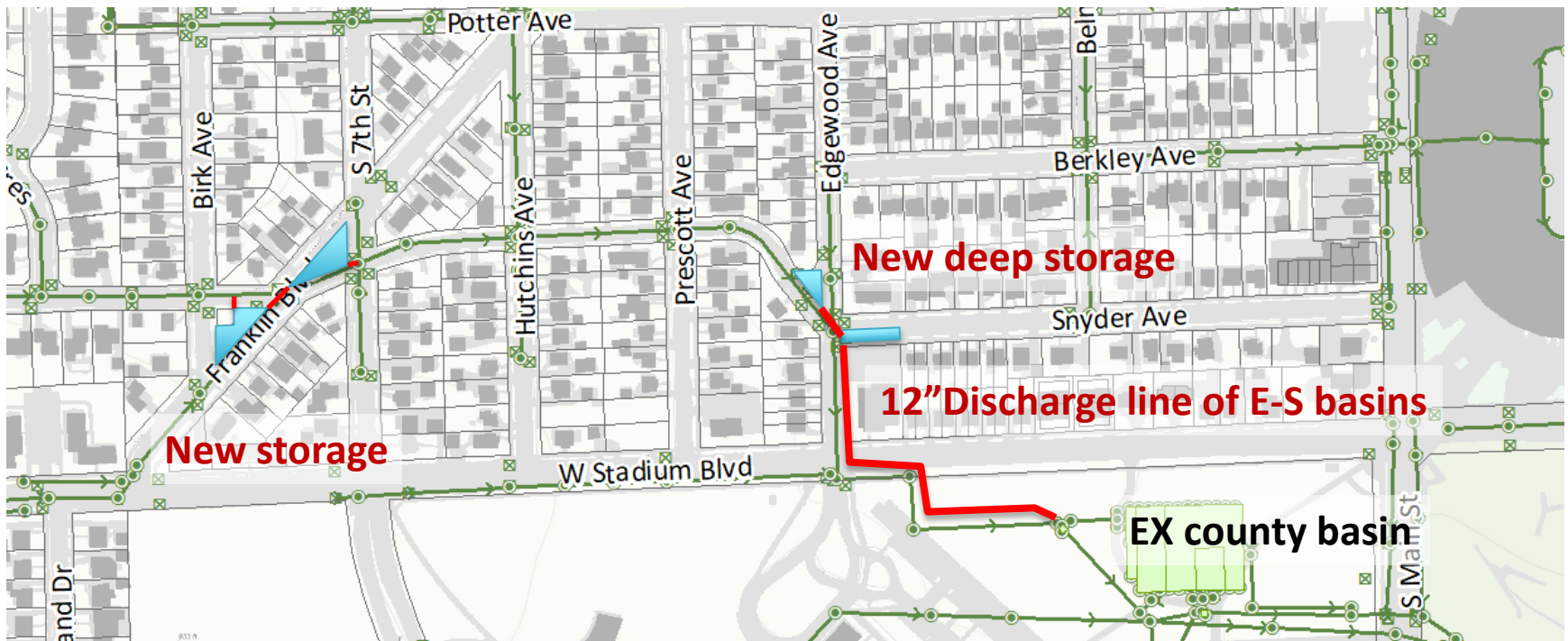
#### (2-3 months)

- 11 parcels within construction limits.
- Franklin closed from 7th through the Hutchins intersection.
- Deep basin construction.



# Snyder ROW Storage (Deeper Edgewood) Alternative

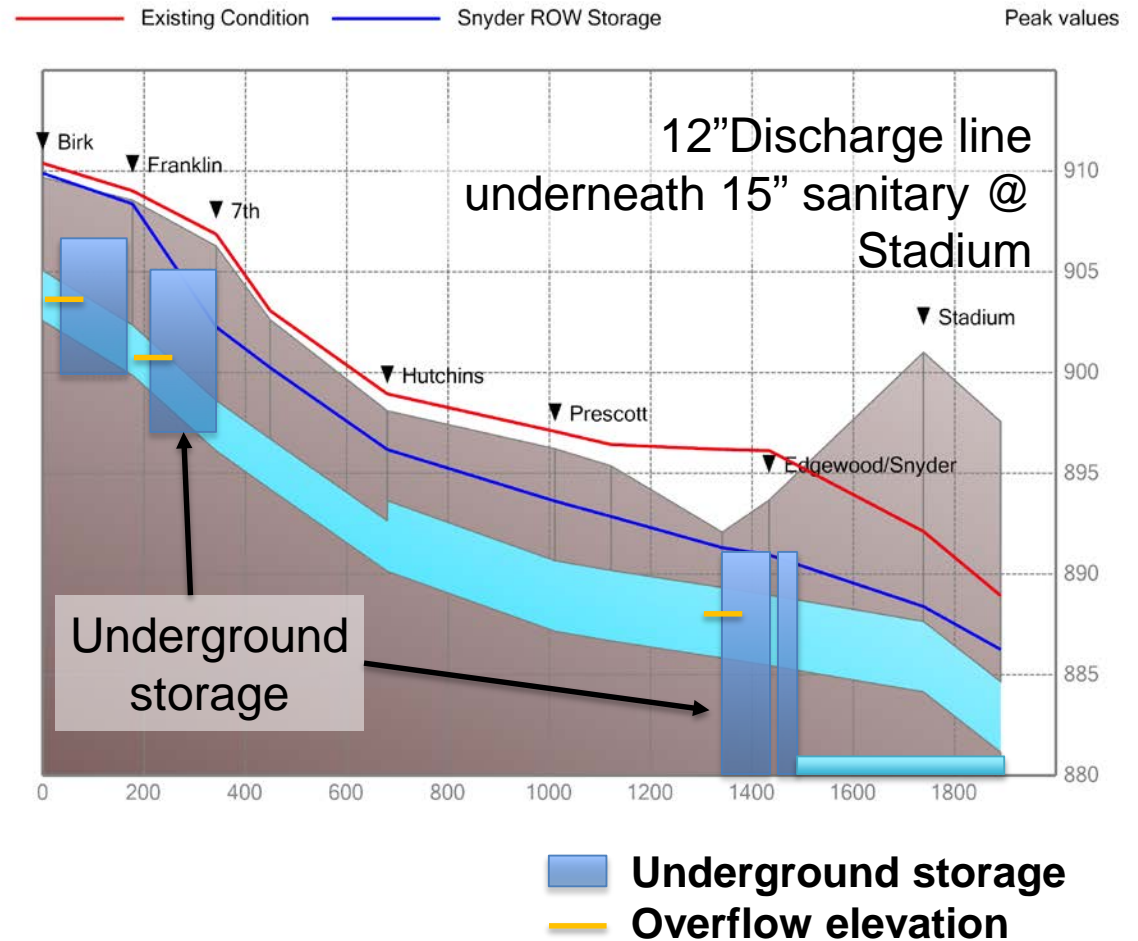
- Combined Alternatives #2 & #5
- Underground storage along Snyder Avenue
- 156,900 CF of storage spread across 4 basins
  - deeper Edgewood-Snyder basins provide additional volume and have dedicated 12" discharge pipes



# Snyder ROW Storage (Deeper Edgewood) Profile View :

- Peak water level kept below Snyder Avenue with 1 foot freeboard

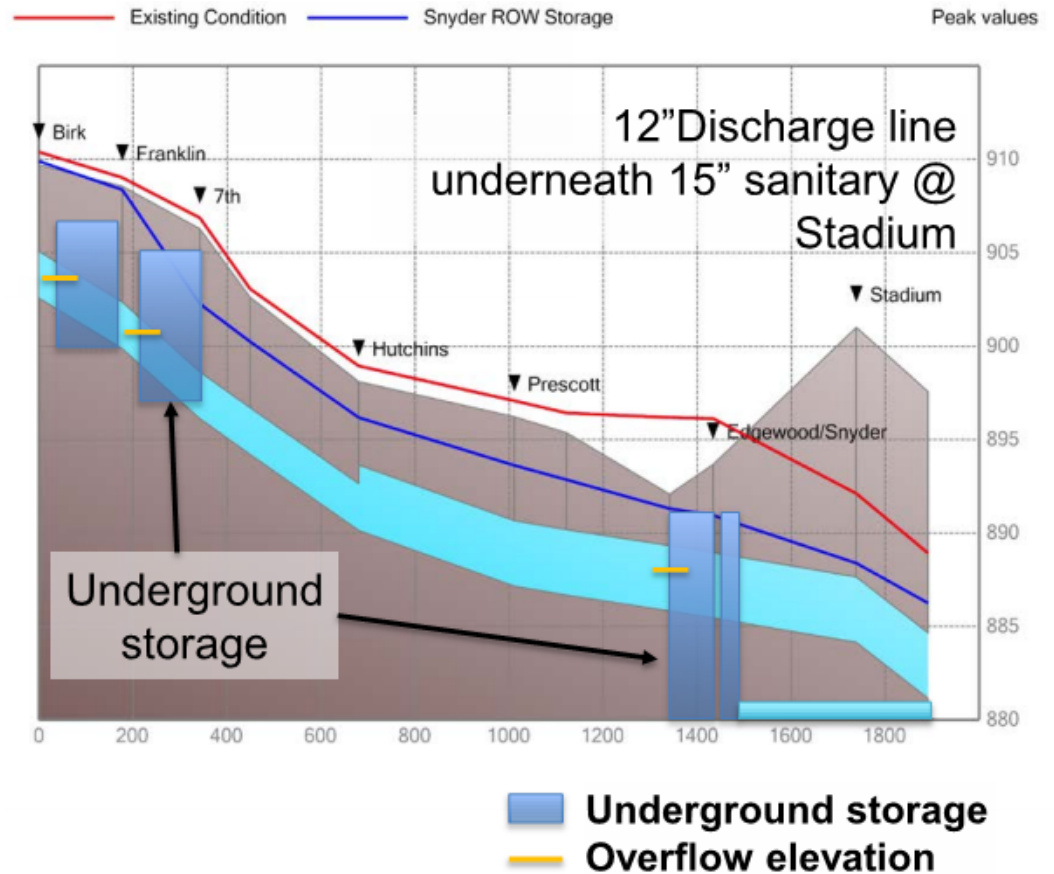
Intersection	Basin Vol (CF)
Birk	53,300
7th	42,700
Edgewood	27,900
Edgewood E	33,000
<b>Total</b>	<b>156,900</b>



# Snyder ROW Storage (Deeper Edgewood) Construction Impacts:

## Franklin/Snyder from Birk to 7th (3 months)

- 15 parcels within construction limits.
- Franklin closed from Birk to 7th. Snyder closed from Birk to 7th.
- Deep basin construction.
- Deep sanitary sewer construction.



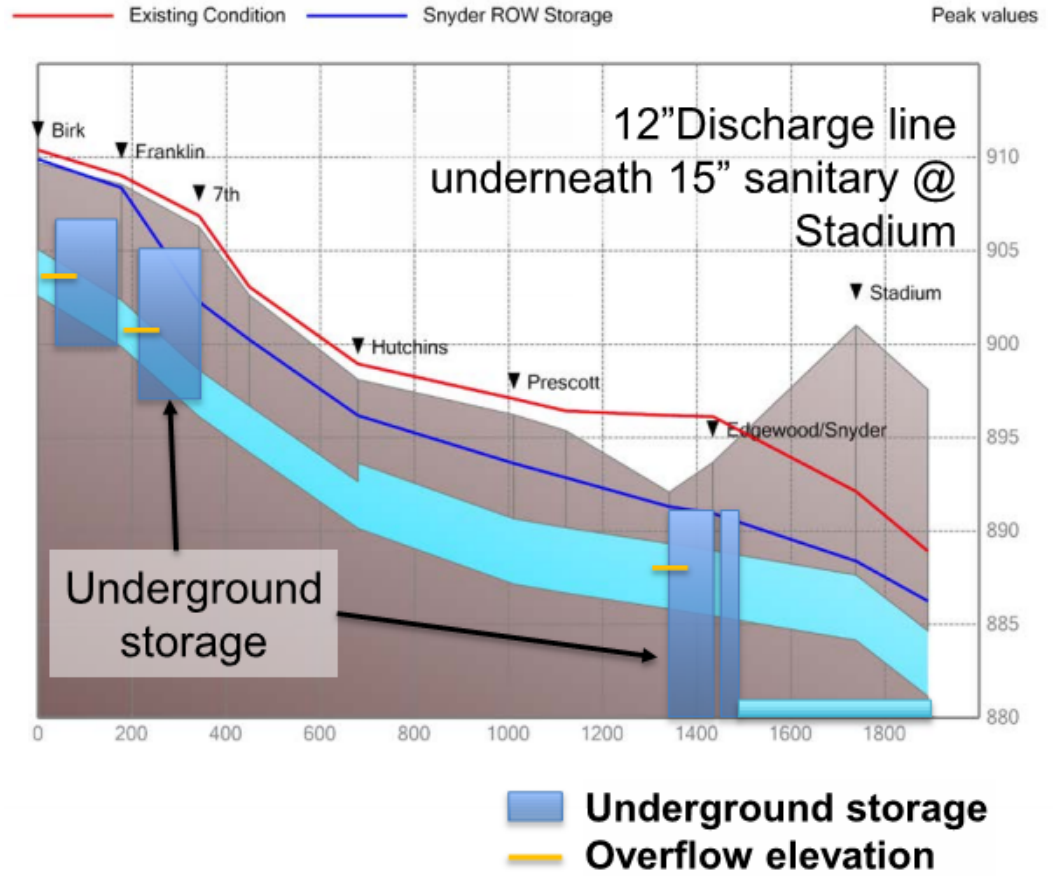
# Snyder ROW Storage (Deeper Edgewood)

## Impacts:

### Snyder/Edgewood from intersection to Stadium

(2-3 months)

- 13 parcels within construction limits.
- Edgewood closed at Snyder intersection. Snyder closed from west of Edgewood through the same intersection.
- Large/deep storm sewer construction.
- Smaller/deep sewer to be bored from Snyder to Pioneer High School.
- Deep sanitary sewer construction.
- Deep basin construction.



# Snyder ROW Storage (Deeper Edgewood)

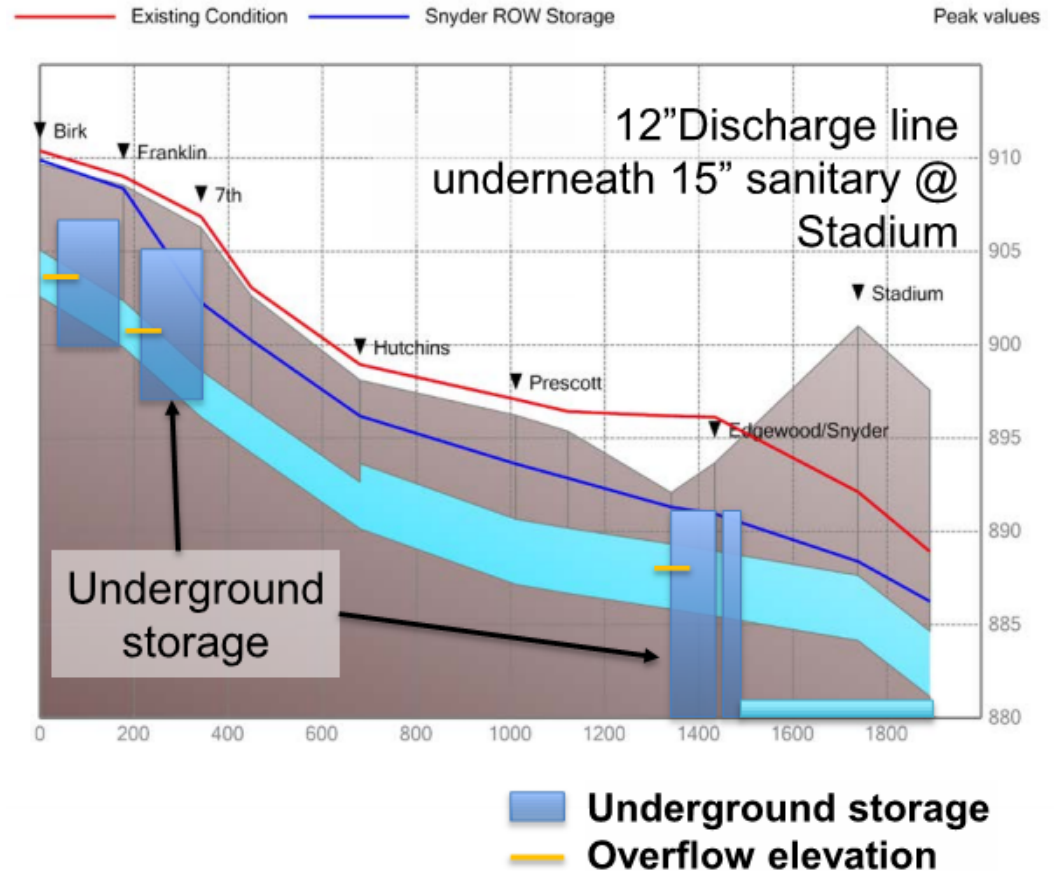
## Impacts:

### Stadium Blvd (0.5-1 month)

- Sewer boring under Stadium – no impacts to traffic.
- Possible night work.

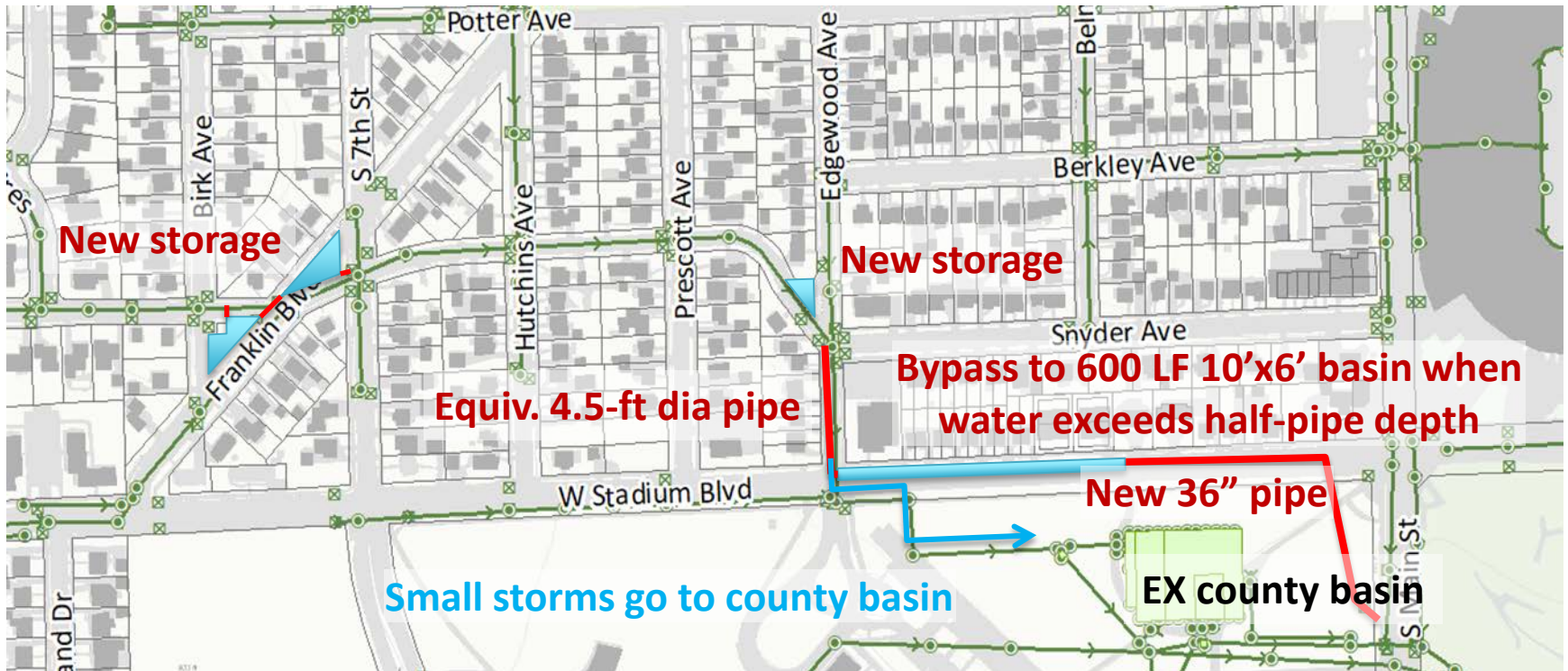
### Pioneer High School (1-1.5 months)

- Driveway closed during construction within it.
- Most of the work will be in grass areas and won't impact the PHS traffic. Some parking spaces in teacher's lot may be closed.
- Timing related to High School operations and Football parking will need to be studied further.



# Snyder + Stadium Storage Alternative

- Modified Alternative #10
- Underground storage along Snyder Avenue and W. Stadium Blvd
- 111,300 CF of storage spread across 4 basins

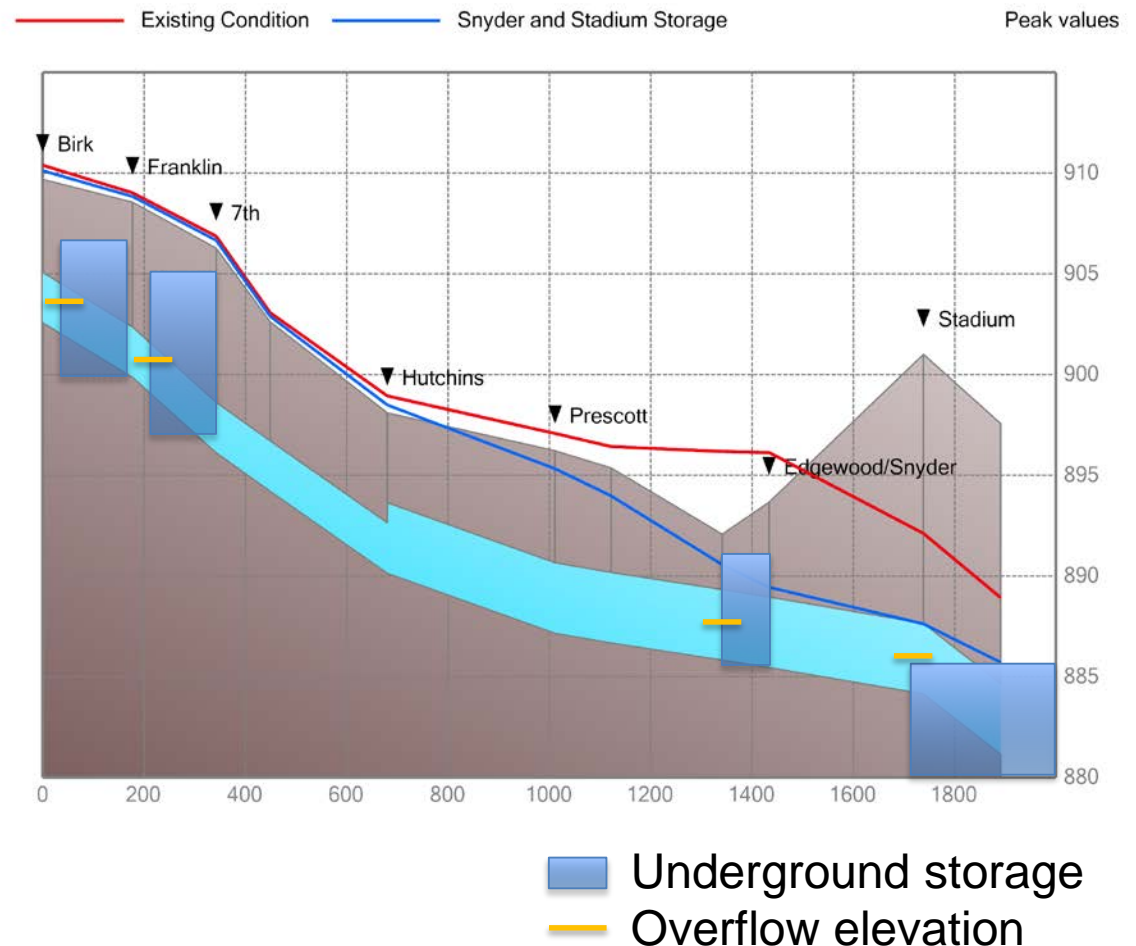


# Snyder + Stadium Storage Alternative

## Profile View:

- Peak water level at Edgewood-Snyder 1 foot below ground

Intersection	Basin Vol (CF)
Birk	33,600
7 <sup>th</sup>	27,600
Edgewood	13,300
Stadium	36,800
<b>Total</b>	<b>111,300</b>





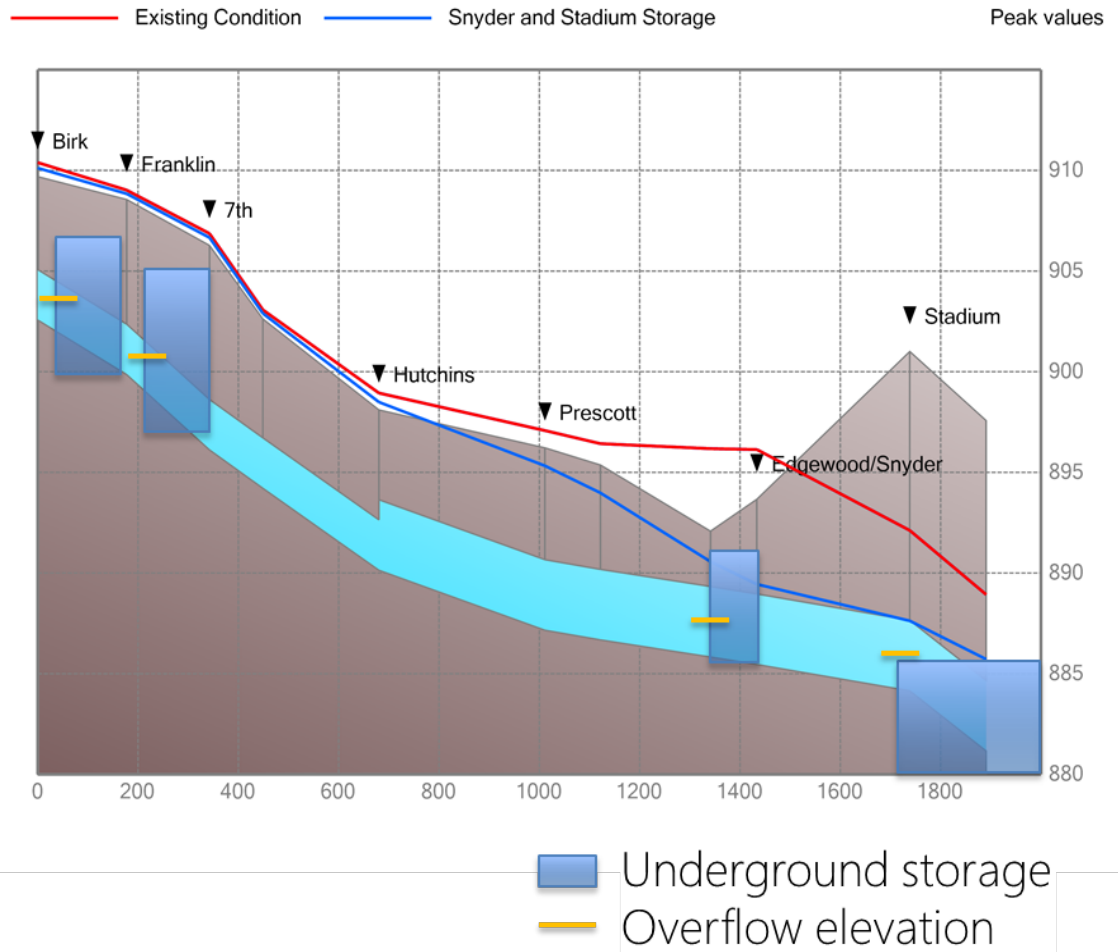
# Snyder + Stadium Storage Alternative Non-Construction Impacts:

**Phase 1:** Franklin/Snyder and Snyder/Edgewood basins and sewers.

- Phase 1 reduces flooding in Snyder/Edgewood, but not to 10-year storm level.

**Phase 2:** Stadium and Pioneer High School storm sewers.

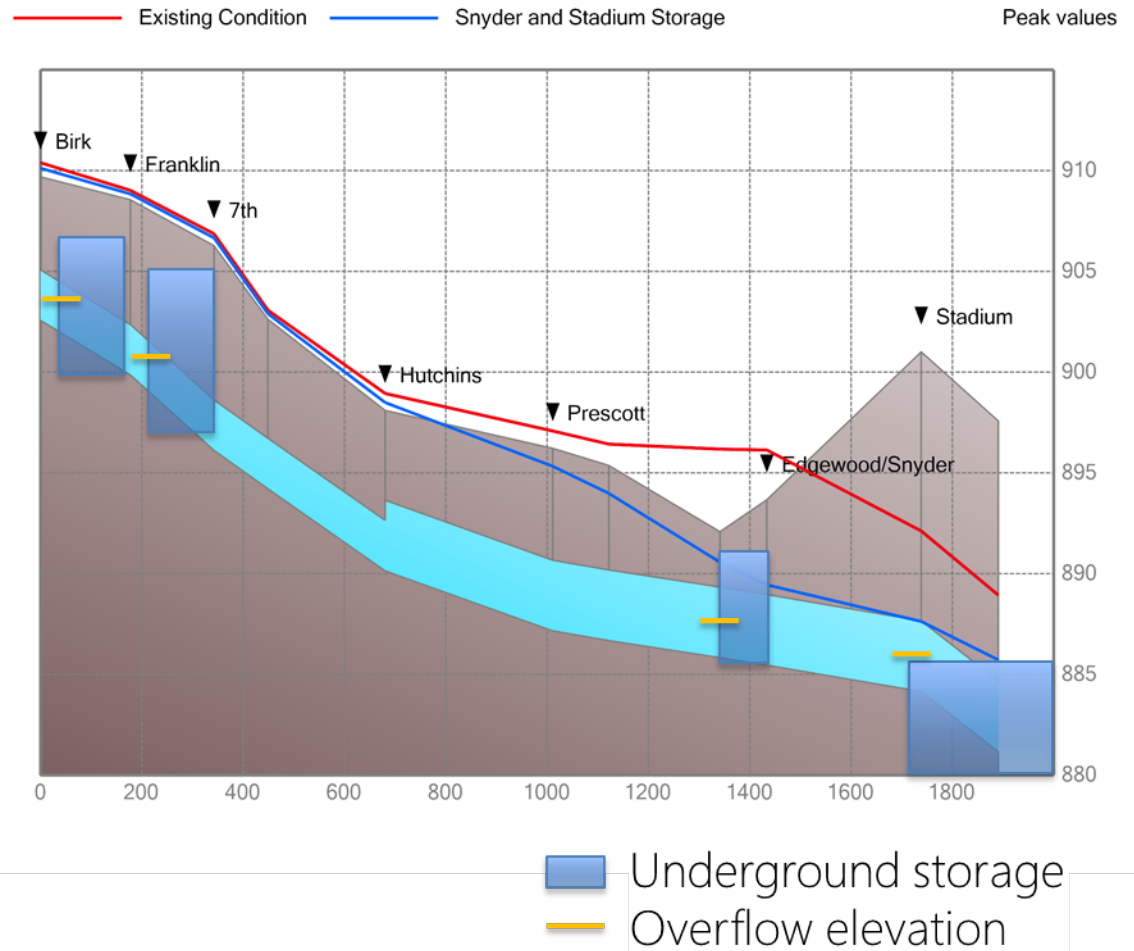
- Phase 2 will be constructed during the W. Stadium Blvd. reconstruction.
- W. Stadium Blvd. reconstruction is not currently funded or scheduled.



# Snyder + Stadium Storage Alternative Construction Impacts:

## Franklin/Snyder from Birk to 7th (3 months)

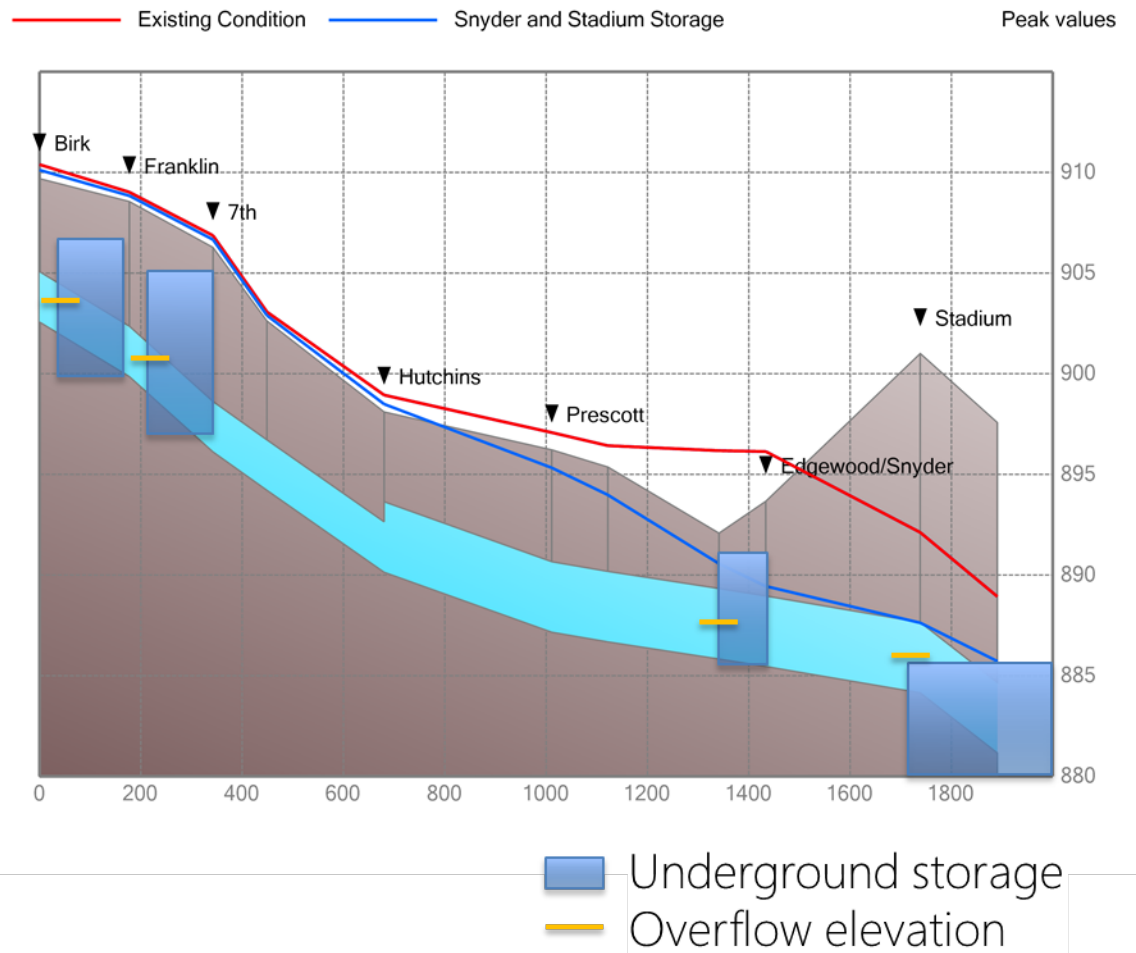
- 15 parcels within construction limits.
- Deep basin construction.
- Deep sanitary sewer construction.



# Snyder + Stadium Storage Alternative Impacts:

## Snyder/Edgewood from Intersection to Stadium (3 months)

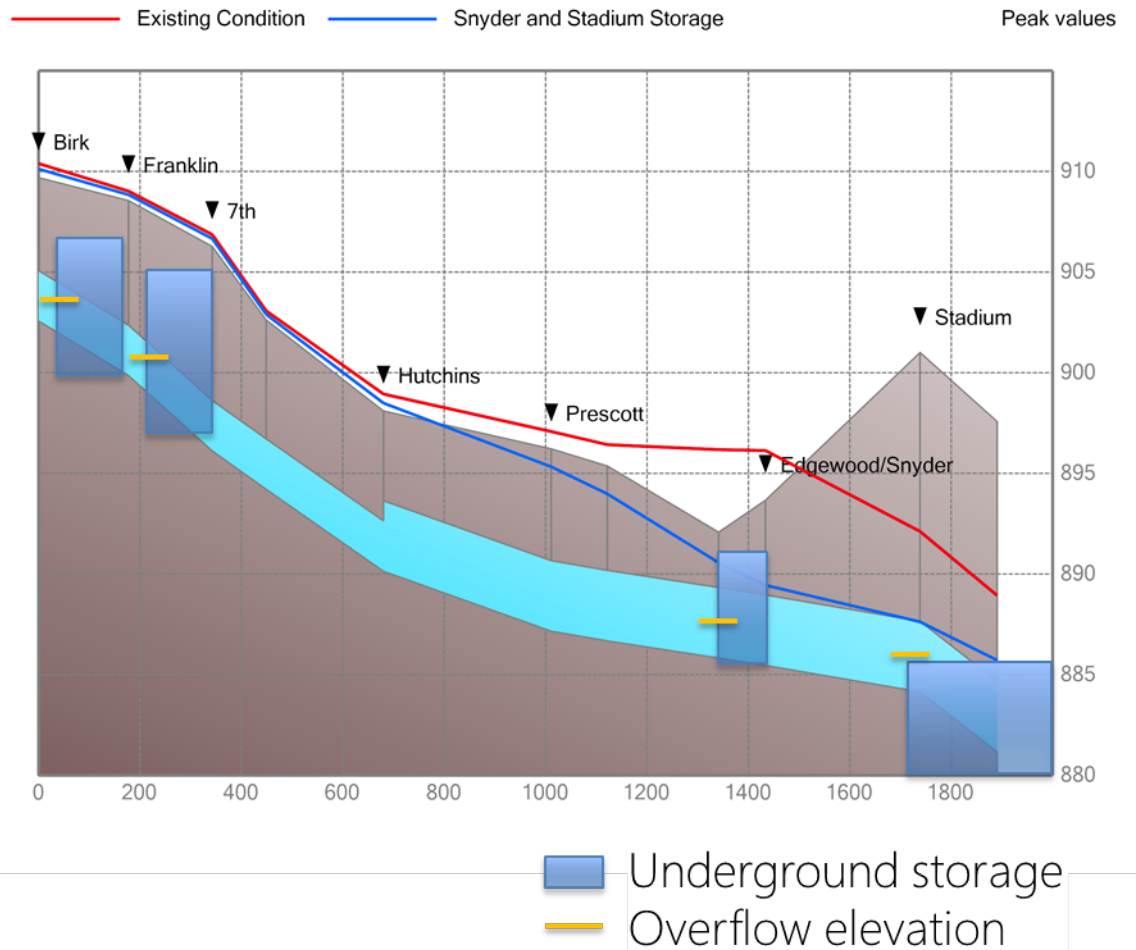
- 13 parcels within construction limits.
- Edgewood closed from Stadium through the Snyder intersection. Snyder closed from west of Edgewood through the same intersection.
- Large/deep storm sewer construction.
- Deep sanitary sewer construction.
- Deep basin construction.



# Snyder + Stadium Storage Alternative Construction Impacts:

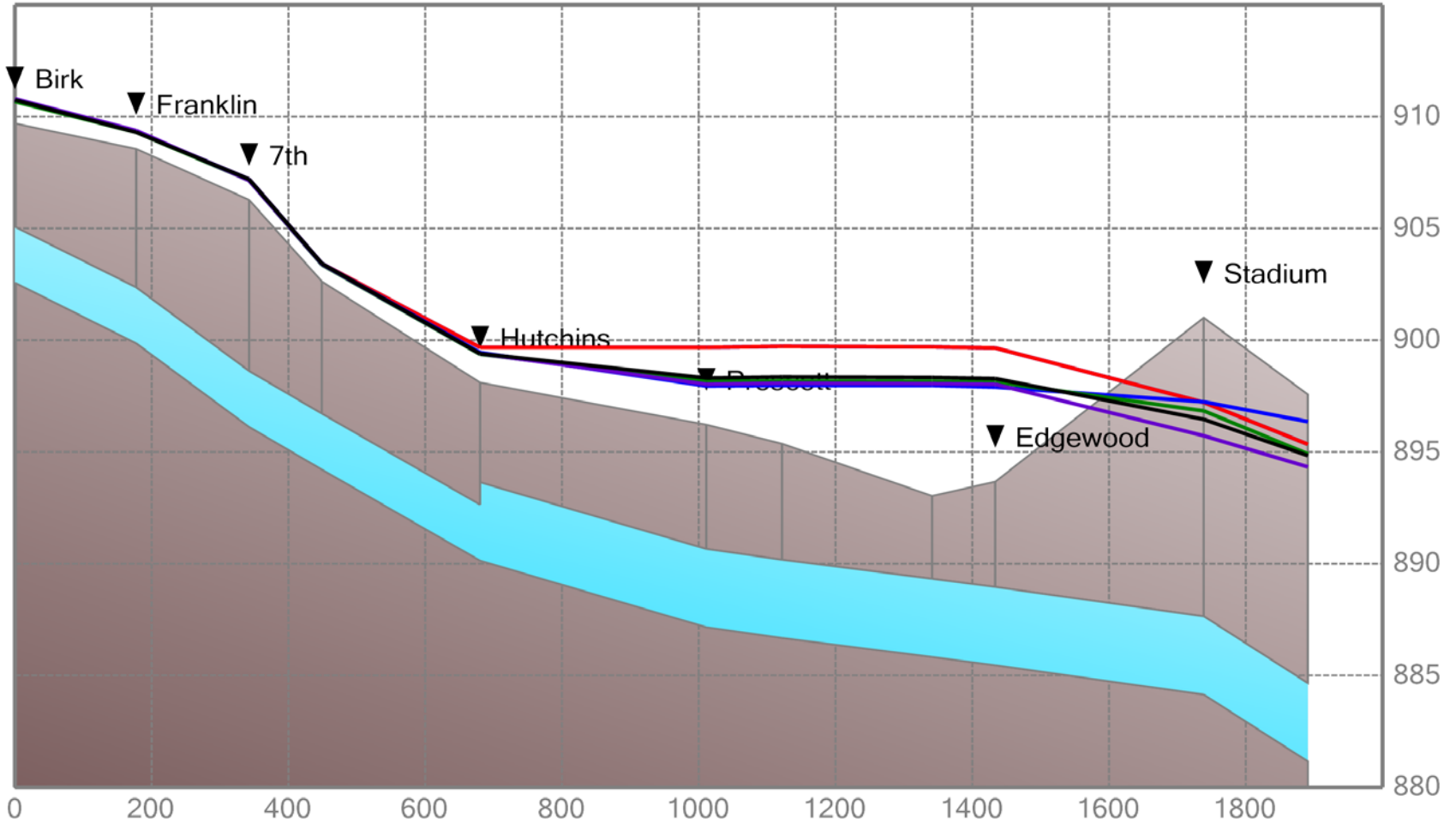
## W. Stadium Blvd and Pioneer High School (constructed during W. Stadium Reconstruction)

- Deep, sewer reconstruction.
- Constructed during W. Stadium Blvd. reconstruction – lane closures and potential detours.



# Profile View (100-Year Storm)

- Existing
- Pioneer Storage
- Snyder ROW Storage (Deeper Birk) Peak values
- Snyder ROW Storage (Deeper Edgewood Option)
- Snyder and Stadium



Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Pioneer Basin	Improved conveyance out of Edgewood-Snyder	\$ 2.9M	YES	Edgewood – 2-3 months Stadium – 0.5 -1 months Pioneer – 3-4 months
Snyder ROW Storage - Deeper BIRK	Expanded storage at Franklin-Snyder with utility relocation and deeper basin	\$ 4.85M	NO	Franklin/Snyder – Birk to 7 <sup>th</sup> –3 months Snyder/Edgewood – 2 months Franklin – 7 <sup>th</sup> to Hutchins – 2-3 months
Snyder ROW Storage – Deeper EDGEWOOD	Underground storage along Snyder Avenue; deeper storage spread across 4 basins	\$ 4.5M	YES	Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood Intersection to Stadium – 2-3 months Stadium – 0.5-1 months Pioneer High School – 1-1.5 months
Snyder + Stadium Storage	Underground storage along Snyder Ave. and W. Stadium Blvd.	\$ 5.3M	PH. 1 – NO PH. 2 - YES	Construction in 2 Phases Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood Intersection to Stadium – 3 months Stadium Blvd and Pioneer HS occur during W. Stadium reconstruction.

# Questions and Discussion

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# Polling Alternatives

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- Participants will use a polling device to cast a “yes” or “no”, choice for each alternative
- Participants will choose viability criteria for each alternative
- Polling is anonymous
- Compiled results will be shown after polling is completed
- Please wait until instructed to use polling device!





# Polling Alternatives

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1. Do you support this alternative to resolve the stormwater issues?

A – Yes

B – No

2. Choose any of the following to explain why you believe this a preferred alternative (Select all that apply):

A – Cost effectiveness

B – Level of impact to area

C – Time to resolution

D – Amount of stormwater captured

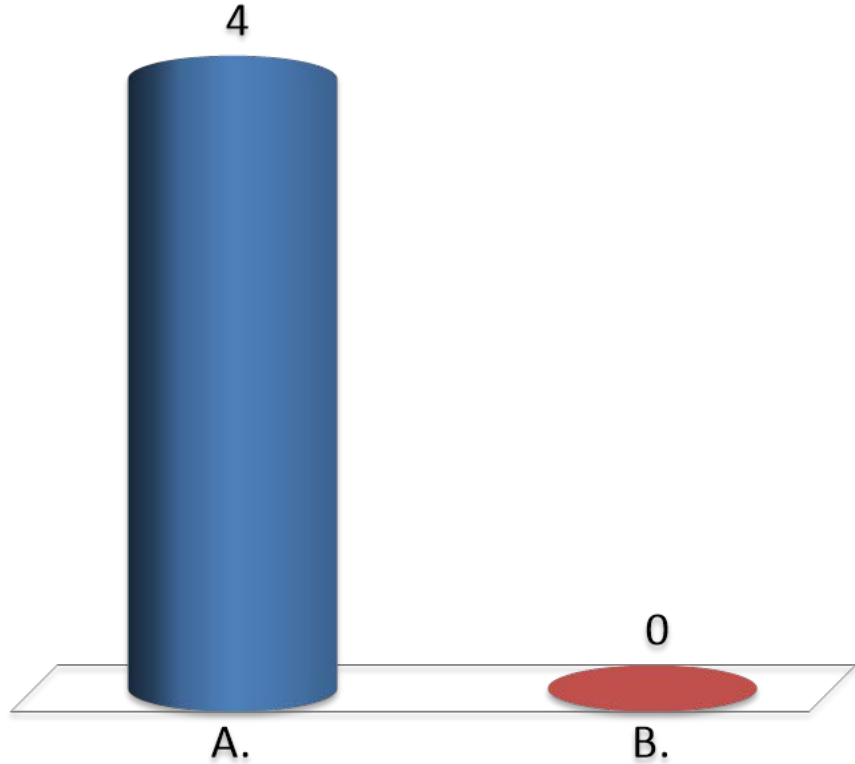
E – Other (please note on handout)



# Pioneer Basin Alternative - Do you support this alternative to resolve the stormwater issues?

Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Pioneer Basin	Improved conveyance out of Edgewood-Snyder	\$ 2.9M	YES	Edgewood – 2-3 months Stadium – 0.5-1 months Pioneer – 3-4 months

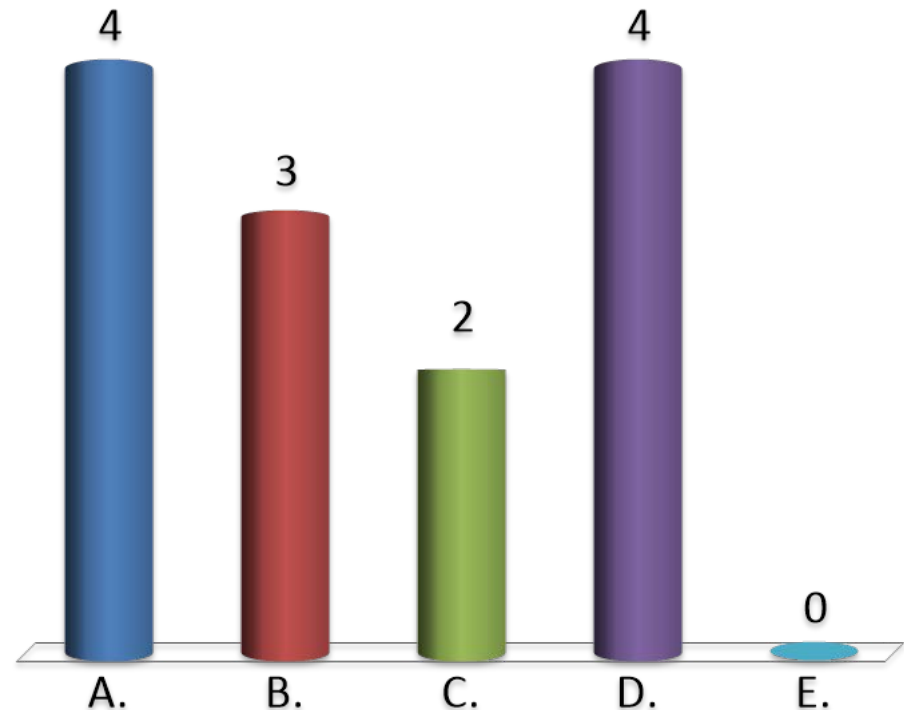
- A. Yes
- B. No



# Pioneer Basin Alternative - Choose any of the following to explain why you believe this is a preferred alternative? (Select all that apply)

Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Pioneer Basin	Improved conveyance out of Edgewood-Snyder	\$ 2.9M	YES	Edgewood – 2-3 months Stadium – 0.5-1 months Pioneer – 3-4 months

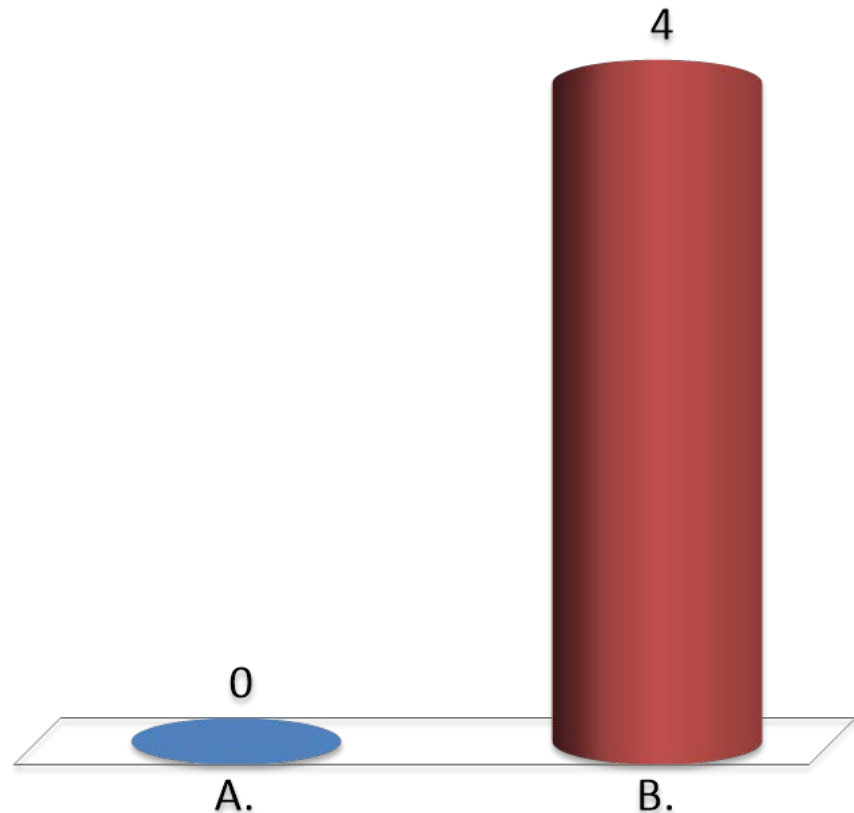
- A. Cost effectiveness
- B. Level of impact to area
- C. Time to resolution
- D. Amount of stormwater captured
- E. Other (please note on handout)



# Snyder ROW Storage (Deeper BIRK) Alternative - Do you support this alternative to resolve the stormwater issues?

Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Snyder ROW Storage - Deeper BIRK	Expanded storage at Franklin-Snyder with utility relocation and deeper basin	\$ 4.85M	NO	Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood – 2 months Franklin – 7 <sup>th</sup> to Hutchins – 2-3 months

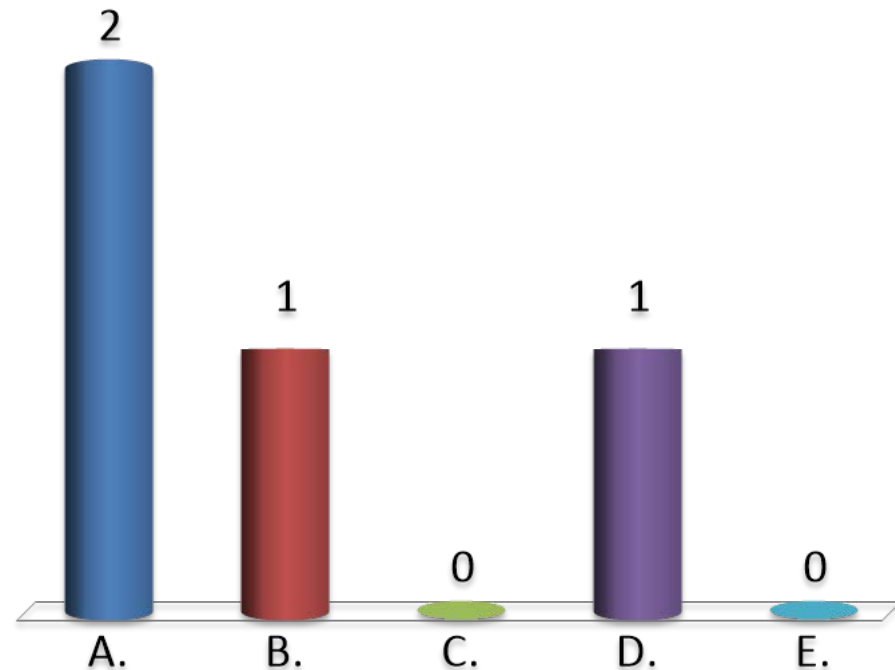
- A. Yes
- B. No



# Snyder ROW Storage (Deeper BIRK) Alternative – Choose any of the following to explain why you believe this is a preferred alternative (Select all that apply)

Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Snyder ROW Storage - Deeper BIRK	Expanded storage at Franklin-Snyder with utility relocation and deeper basin	\$ 4.85M	NO	Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood – 2 months Franklin – 7 <sup>th</sup> to Hutchins – 2-3 months

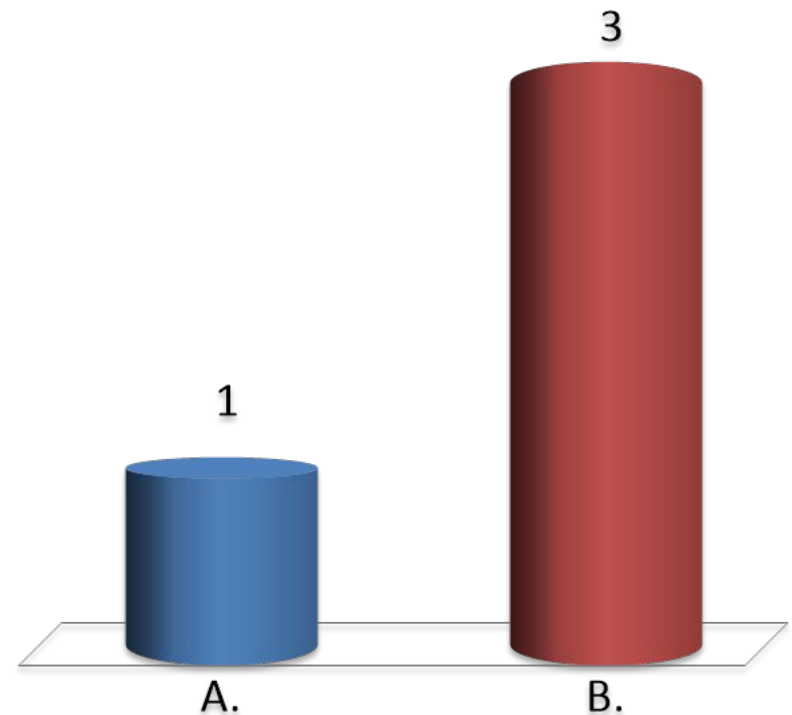
- A. Cost effectiveness
- B. Level of impact to area
- C. Time to resolution
- D. Amount of stormwater captured
- E. Other (please note on handout)



# Snyder ROW Storage (Deeper EDGEWOOD) Alternative – Do you support this alternative to resolve the stormwater issues?

Alternative	Description	Cost Projection	Flooding Addressed?	Construction Timing
Snyder ROW Storage – Deeper EDGEWOOD	Underground storage along Snyder Avenue; deeper storage spread across 4 basins	\$ 4.5M	YES	Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood Intersection to Stadium – 2-3 months Stadium – 0.5-1 months Pioneer High School – 1-1.5 months

- A. Yes
- B. No

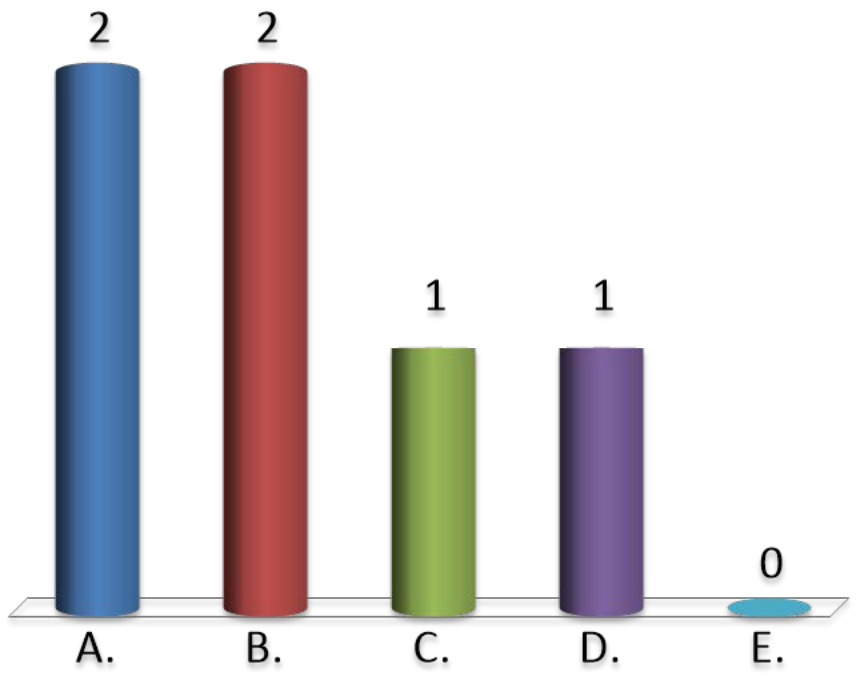


# Snyder ROW Storage (Deeper EDGEWOOD) Alternative –

Choose any of the following to explain why you believe this is a preferred alternative? (Select all that apply)

Alternative	Description	Cost Projection	Flooding Addressed?	Construction Timing
Snyder ROW Storage – Deeper EDGEWOOD	Underground storage along Snyder Avenue; deeper storage spread across 4 basins	\$ 4.5M	YES	Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood Intersection to Stadium – 2-3 months Stadium – 0.5-1 months Pioneer High School – 1-1.5 months

- A. Cost effectiveness
- B. Level of impact to area
- C. Time to resolution
- D. Amount of stormwater captured
- E. Other (please note on handout)

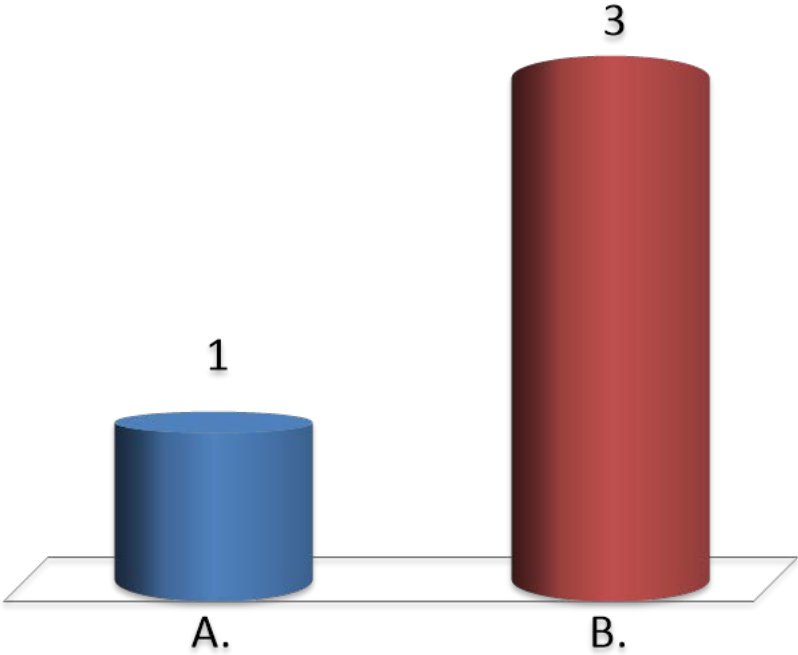


# Snyder + Stadium Storage Alternative – Do you support this alternative to resolve the stormwater issues?

Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Snyder + Stadium Storage	Underground storage along Snyder Ave. and W. Stadium Blvd.	\$ 5.3M	PH. 1 – NO PH. 2 - YES	Construction in 2 Phases Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood Intersection to Stadium – 3 months Stadium Blvd and Pioneer HS occur during W. Stadium reconstruction.

A. Yes

B. No

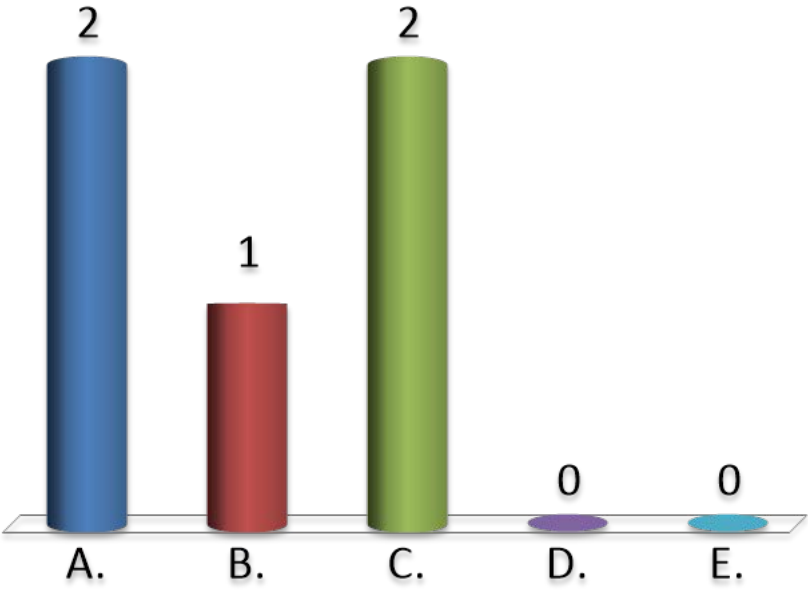




# Snyder + Stadium Storage Alternative – Choose any of the following to explain why you believe this is a preferred alternative? (Select all that apply)

Alternative	Description	Cost Projection	Flooding Addressed Yes / No	Construction Timing
Snyder + Stadium Storage	Underground storage along Snyder Ave. and W. Stadium Blvd.	\$ 5.3M	PH. 1 – NO PH. 2 - YES	Construction in 2 Phases Franklin/Snyder – Birk to 7 <sup>th</sup> – 3 months Snyder/Edgewood Intersection to Stadium – 3 months Stadium Blvd and Pioneer HS occur during W. Stadium reconstruction.

- A. Cost effectiveness
- B. Level of impact to area
- C. Time to resolution
- D. Amount of stormwater captured
- E. Other (please note on handout)



# Next Steps

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- Late May 2019
  - Select Preferred Alternative
- Early June 2019
  - Basis of Design Report
- Late June 2019
  - 30% Design Model Analysis
  - Public Meeting #4 (anticipated)
- July 2019
  - 30% Plan Submittal
- August 2019
  - Finalize 30% Plan



# Thank you for participating!

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- A summary of the meeting will be shared with all participants.
- Updates will be provided on the project web page - [a2gov.org/sesip](http://a2gov.org/sesip).

