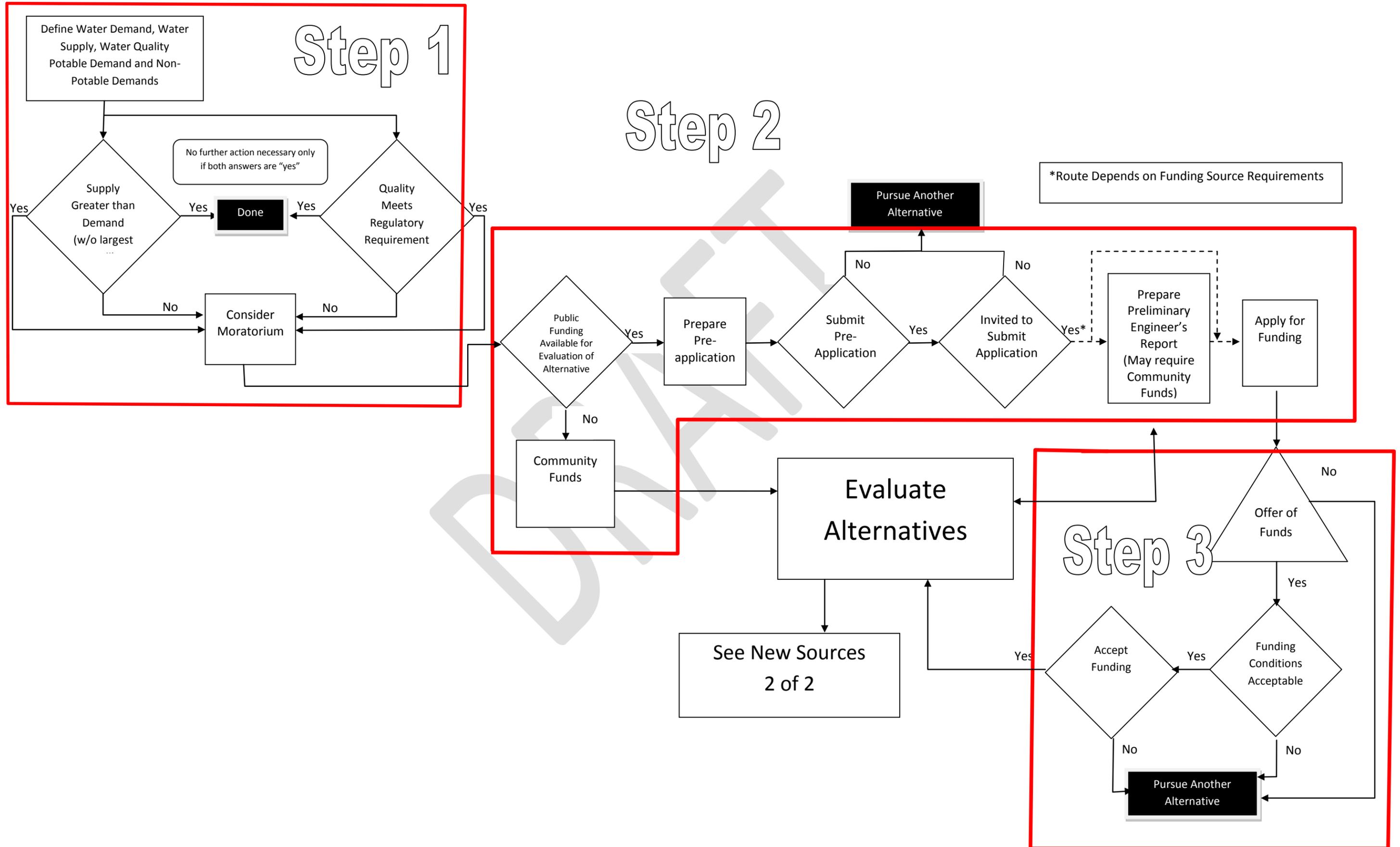


start

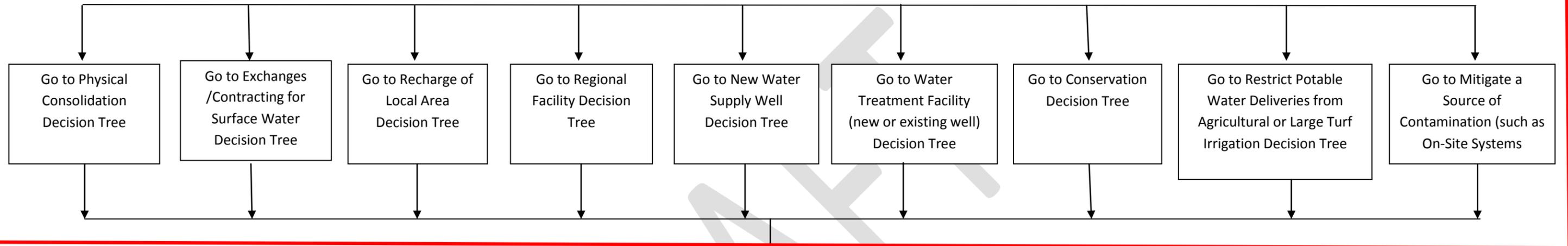
New Sources

Ivanhoe PUD



See New Sources
1 of 2

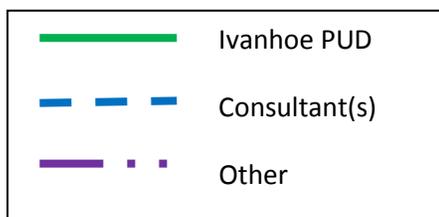
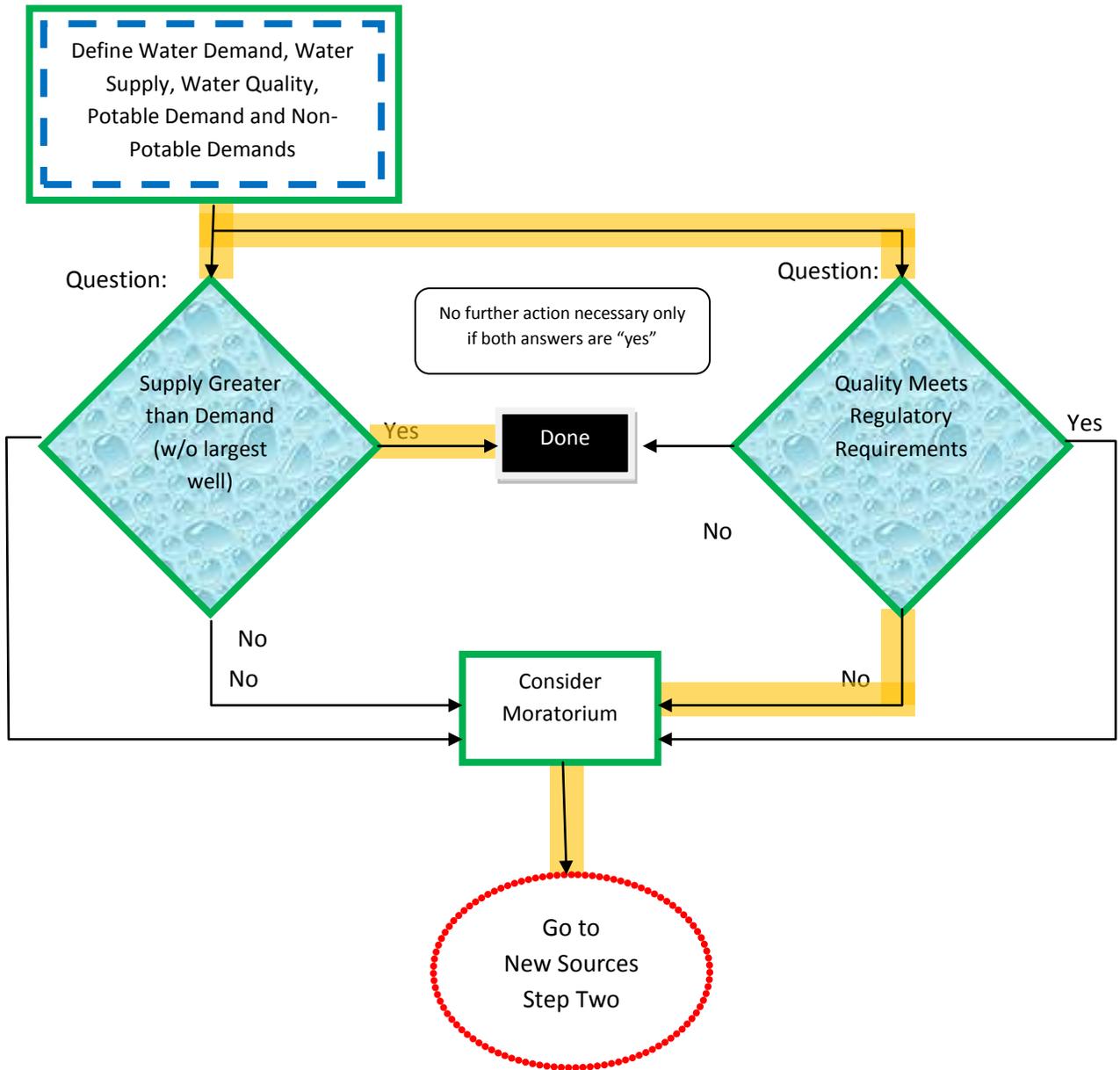
Step 4



Implement Approved Alternatives

Step 5

Ivanhoe PUD New Sources Step One



Ivanhoe PUD
New Sources
Step One

Ivanhoe PUD

Ivanhoe PUD

Population 4,500
Connections 1,114

Residential Water Rates \$16.75 and \$0.49/100 cf

Average water bill is \$25.00/month

Well 8 Constructed in 2013

MHI \$ 36,841 (2010) 1.5% of MHI equals \$552/yr or \$46/mon

Well 1 Inactive since 2005 (nitrate exceeds limit, DBCP)

Well 2 Limited use since 2005 (nitrate exceeds limit, DBCP) presence of TCP
Constructed in 1946
601 gpm
276 ft deep, perforations from 182 ft to 235 ft

Well 3 Destroyed

Well 4 Active
Constructed in 1961
363 gpm
265 ft deep, perforations from 174 ft to 179 ft

Well 5 Inactive due to high nitrate

Well 6 Limited use (high nitrate), presence of TCP
Constructed in 1984
600 gpm
425 ft deep, perforations from 230 ft to 410 ft

Well 7 Limited use (nitrate exceeds limit), presence of TCP
Constructed in 1984
578 gpm
537 ft deep, perforations from 250 ft to 460 ft

Well 8 pending formal CDPH permit
Constructed in 2013
750 gpm 545 ft deep, perforations from 270 ft to 545 ft

Ivanhoe PUD
New Sources

Water Demands (2012) Average – 383 gpm, Max. Day – 831 gpm, Peak Hr. – 1,247 gpm

Potable

Non Potable – unknown demand

Water Supply > Max. Day Demand without largest well (If Wells 2 and 7 are not used), however Well 6 is near to exceed NO₃

Unknown system losses

Neighboring community - Visalia

Well	GPM	Status	Recommended Active	Largest Well out of Service
1	-	Inactive		
2	601	Exceeds NO ₃ . DBCP	601	1
3	-	Destroyed		
4	363		363	363
5	-	Inactive		
6	600	High NO ₃	600	600 ²
7	578	Exceeds NO ₃		
8	950		950	
Totals			2,514	963

¹ Well No. 2 recently exceed the NO₃ limit of 45 mg/l

² Well No. 6 may soon exceed the NO₃ limit of 45 mg/l

Ivanhoe PUD New Sources Step Two

From
New Sources
Step One

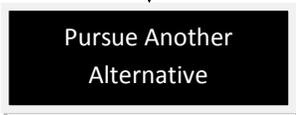
Question:



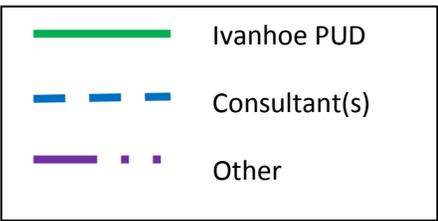
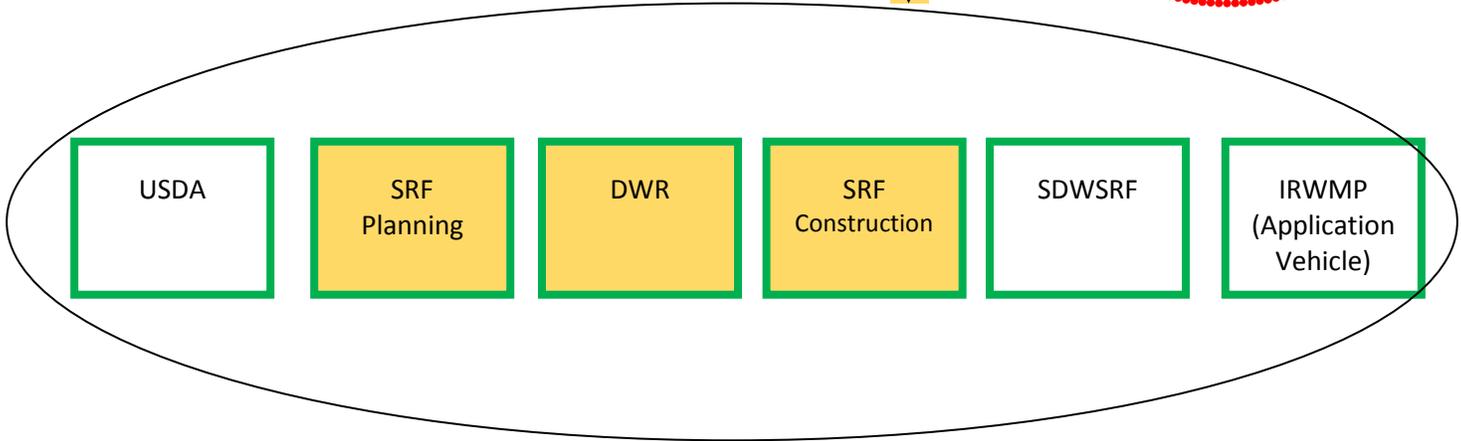
YES



NO



Go to
New Sources
Step 2A, 2B & 2C

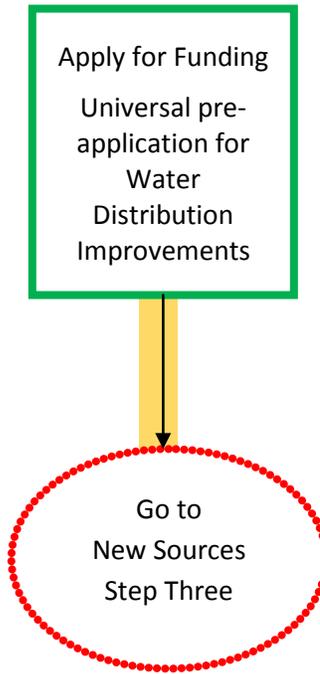


Ivanhoe PUD
New Sources
Step Two A

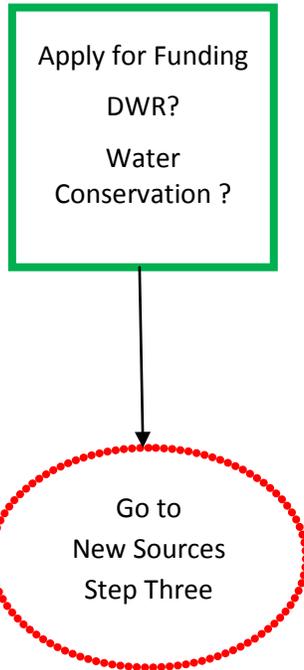
Apply for Funding
Proposition 84 for
Planning Funds
July 2011
\$500.000

Go to
New Sources
Step Three

Ivanhoe PUD
New Sources
Step Two B



Ivanhoe PUD
New Sources
Step Two C



Ivanhoe PUD
New Sources
Step Two

Ivanhoe PUD SRF Application for Planning Funds

Prepared by: Ivanhoe PUD

Cost to Prepare:

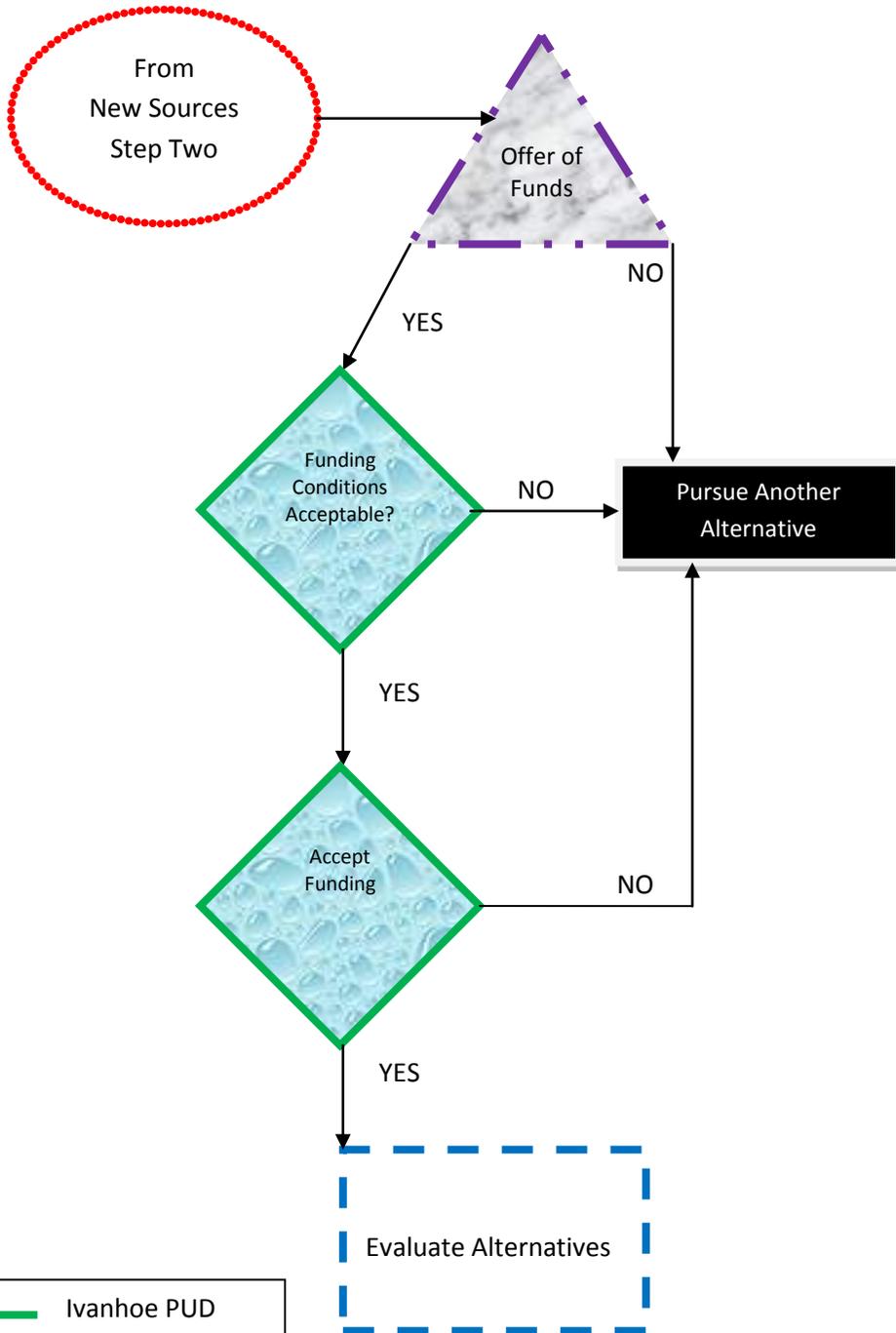
Source of Funds:

Funding Request:

Timeline of Preparation:

Response to Application: None

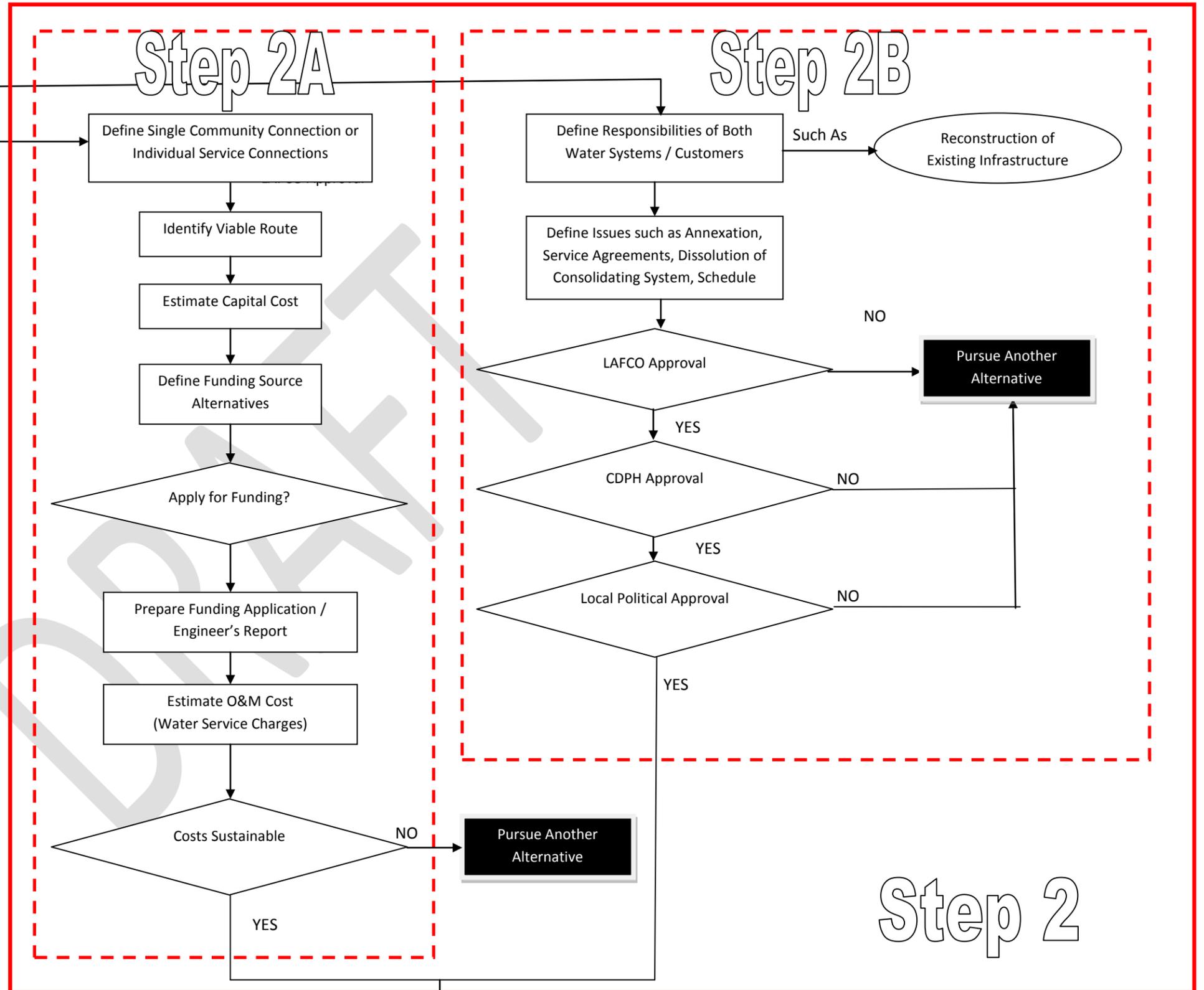
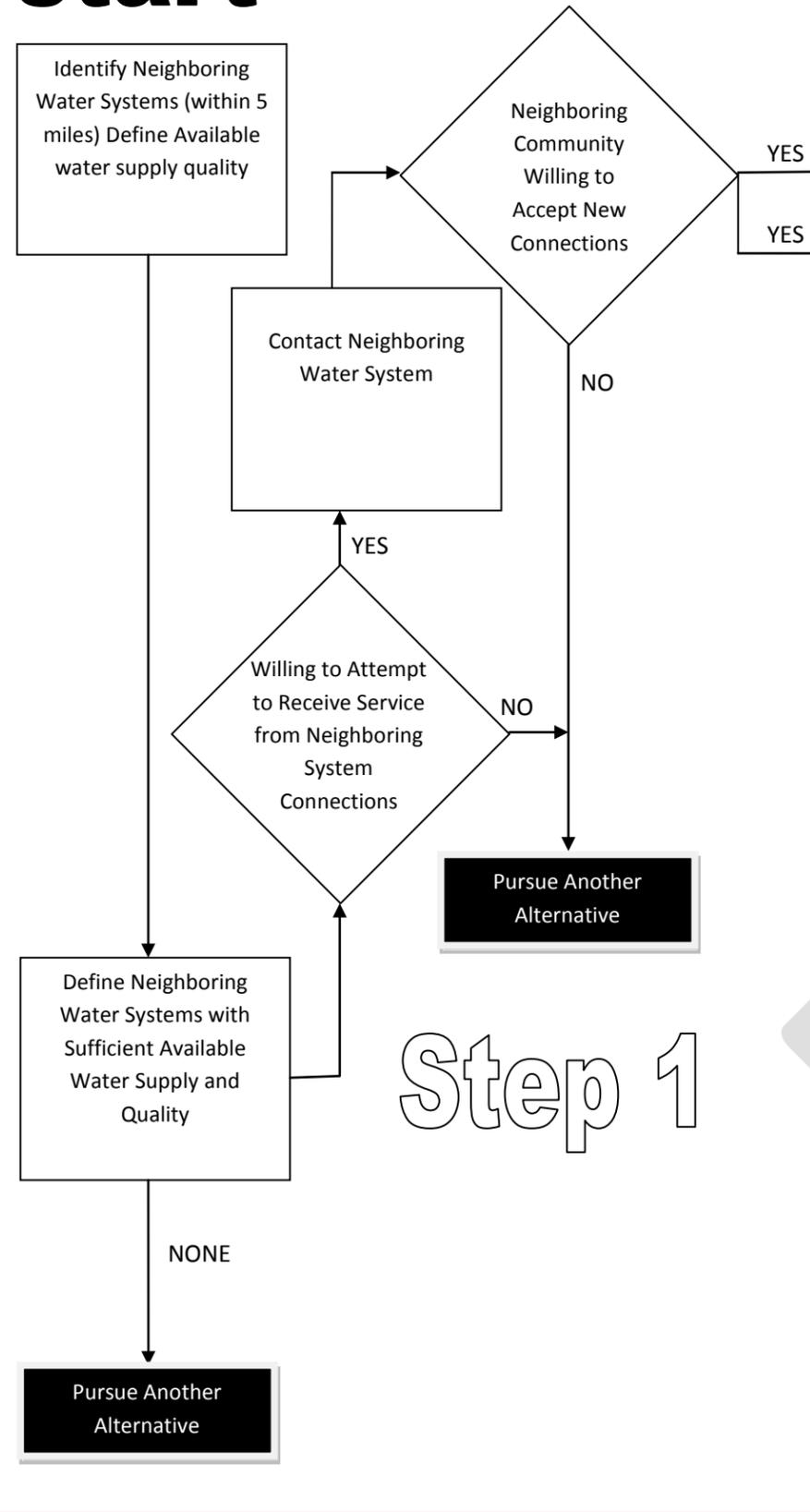
Ivanhoe PUD
New Sources
Step Three



start

Physical Consolidation

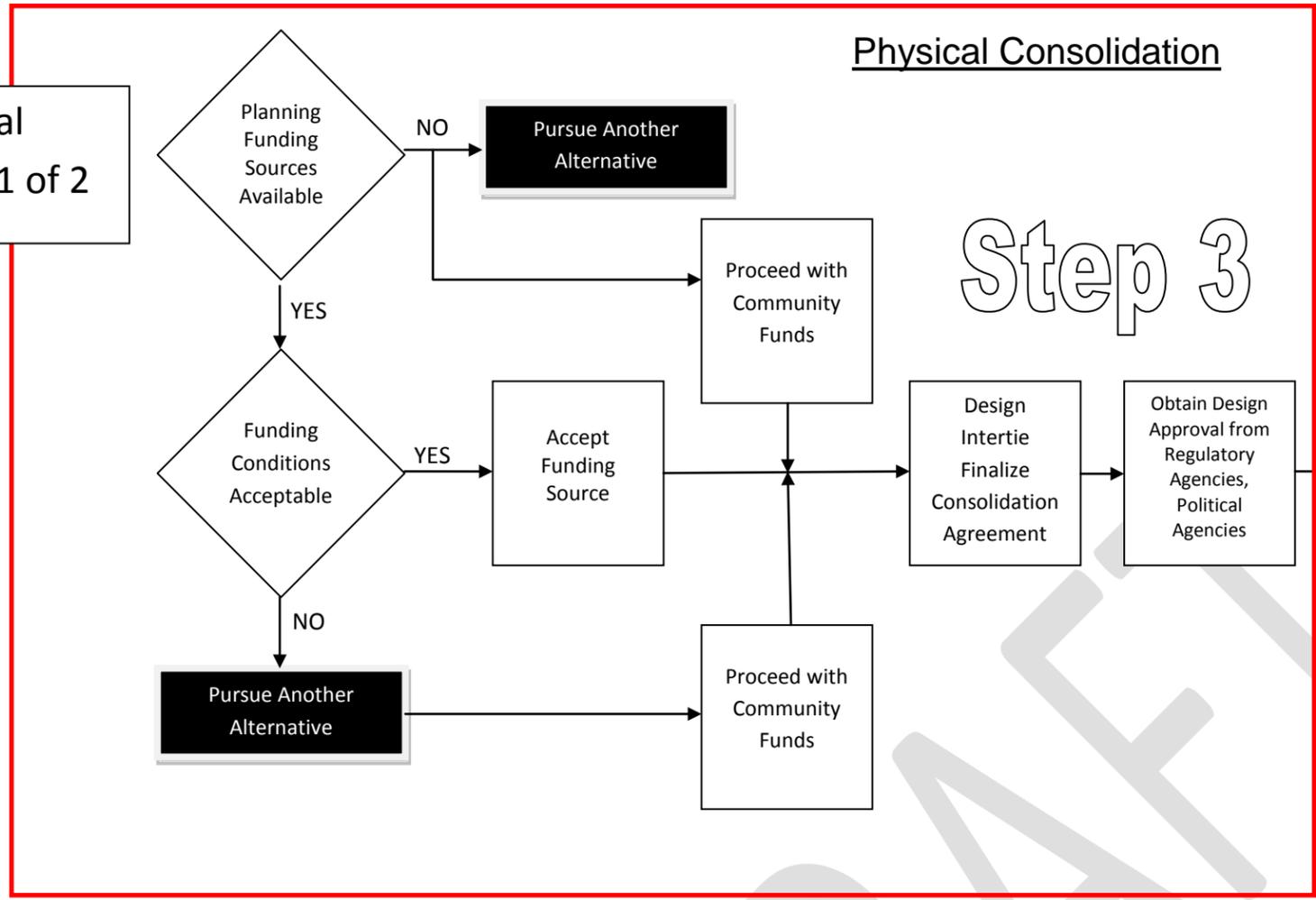
Ivanhoe PUD



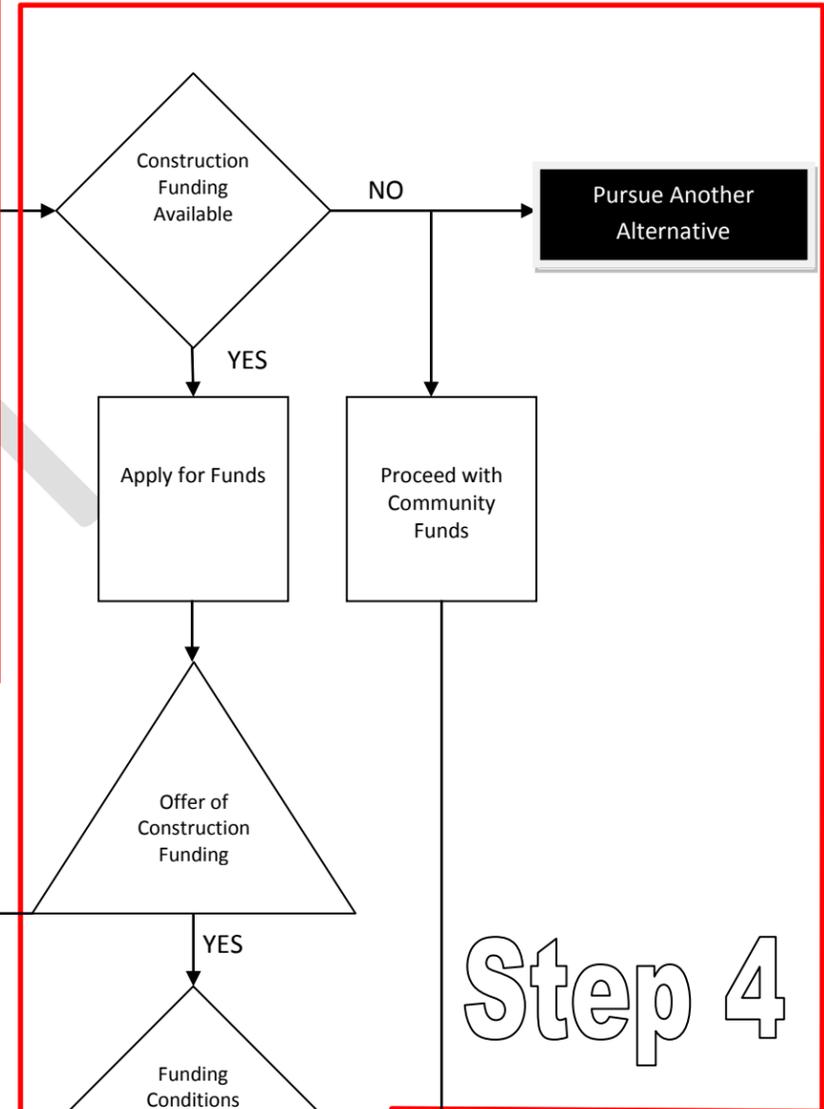
See Physical Consolidation 2 of 2

Physical Consolidation

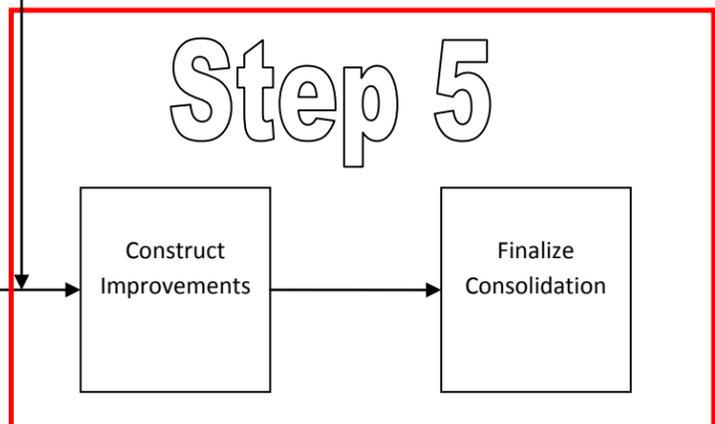
See Physical Consolidation 1 of 2



Step 3



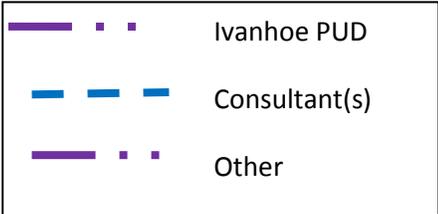
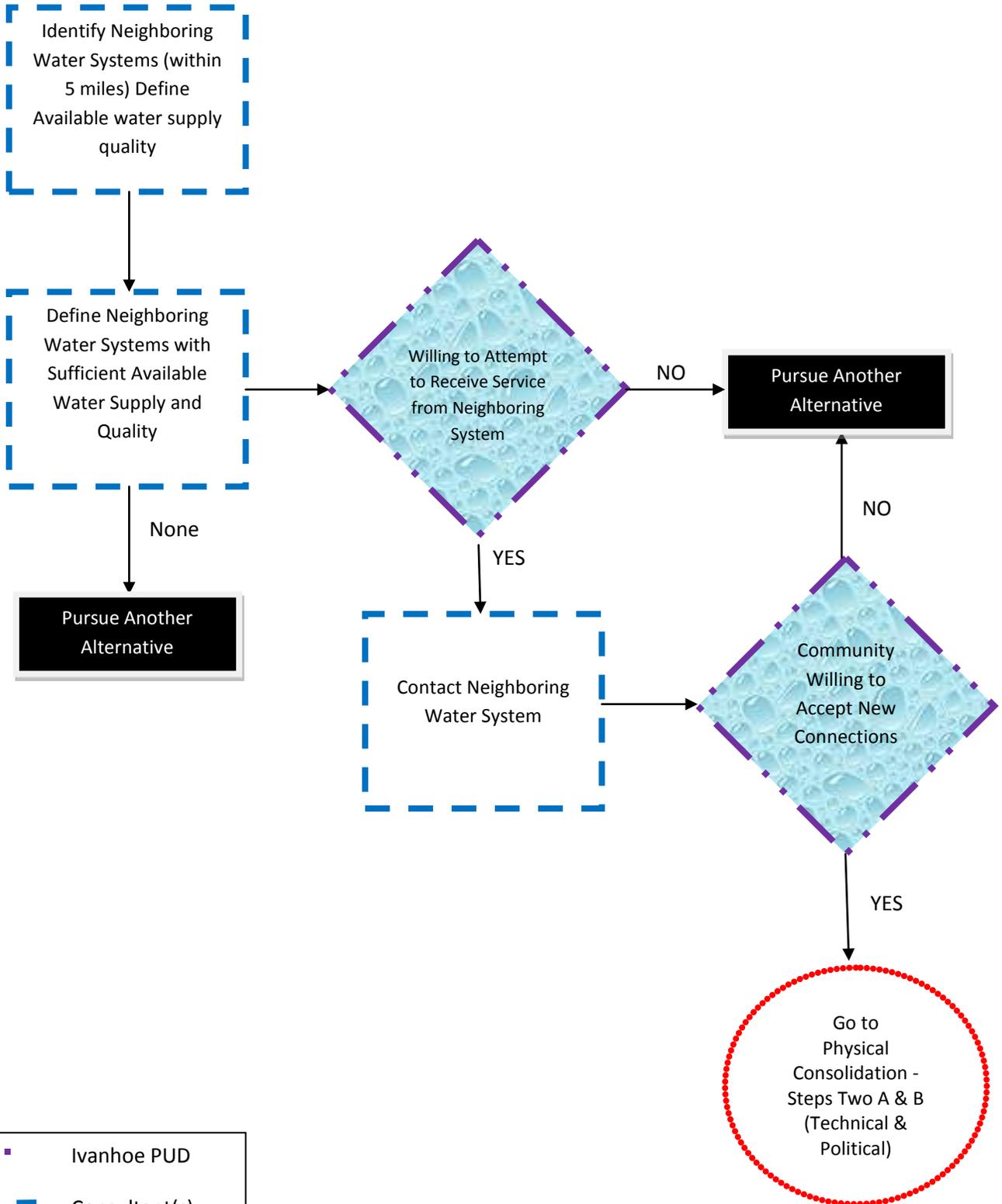
Step 4



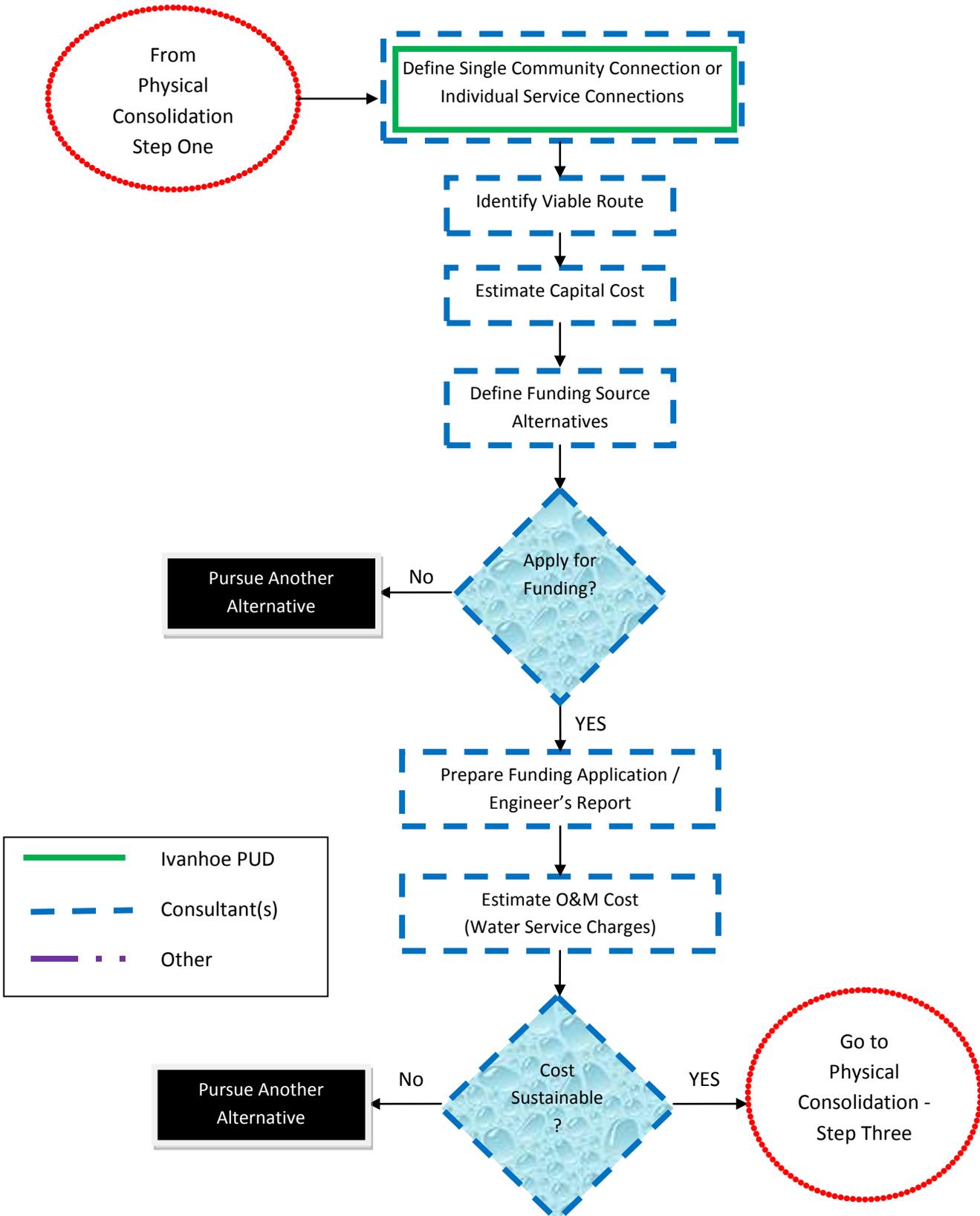
Step 5

DRAFT

Ivanhoe PUD Physical Consolidation Step One

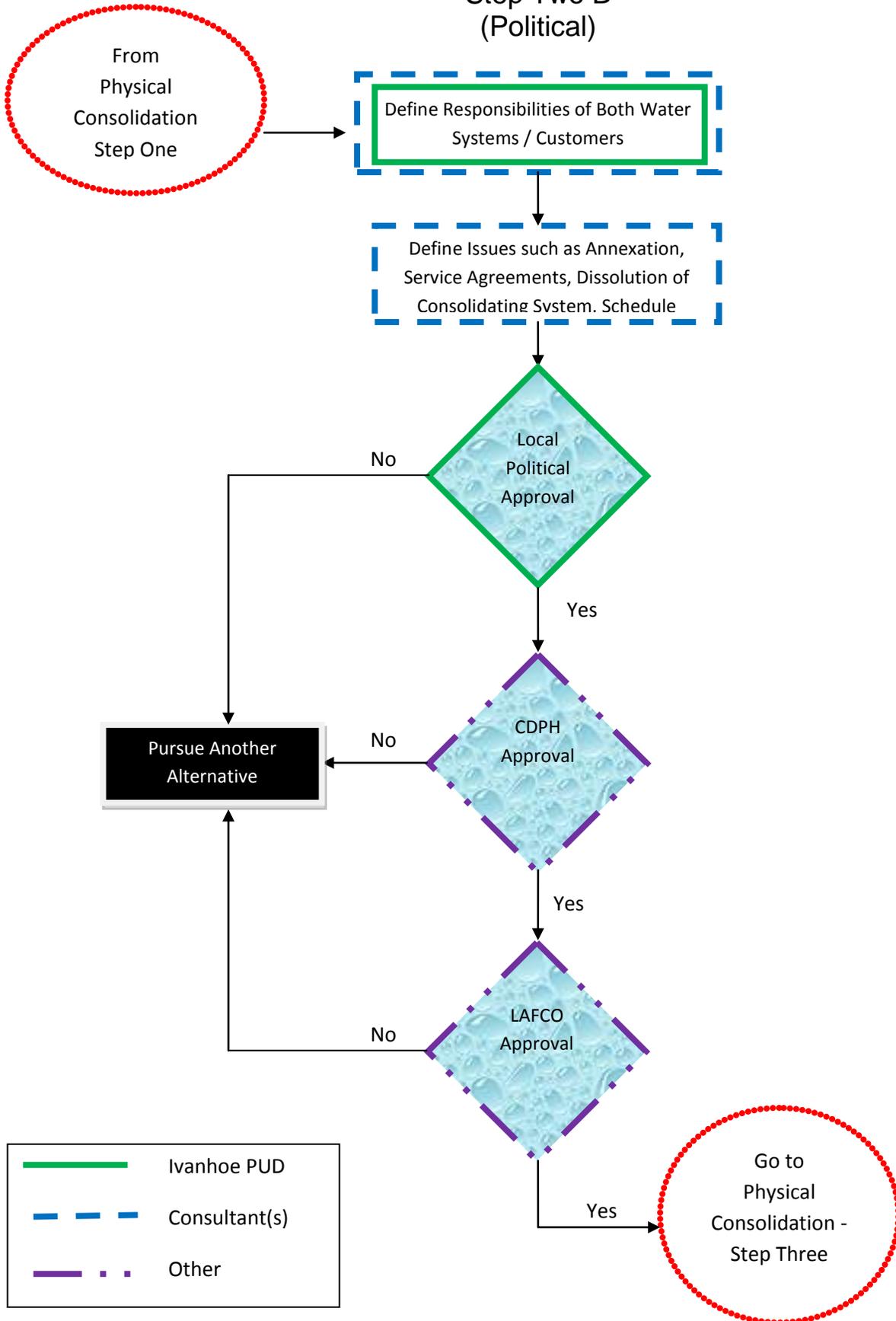


Ivanhoe PUD Physical Consolidation Step Two A (Technical)



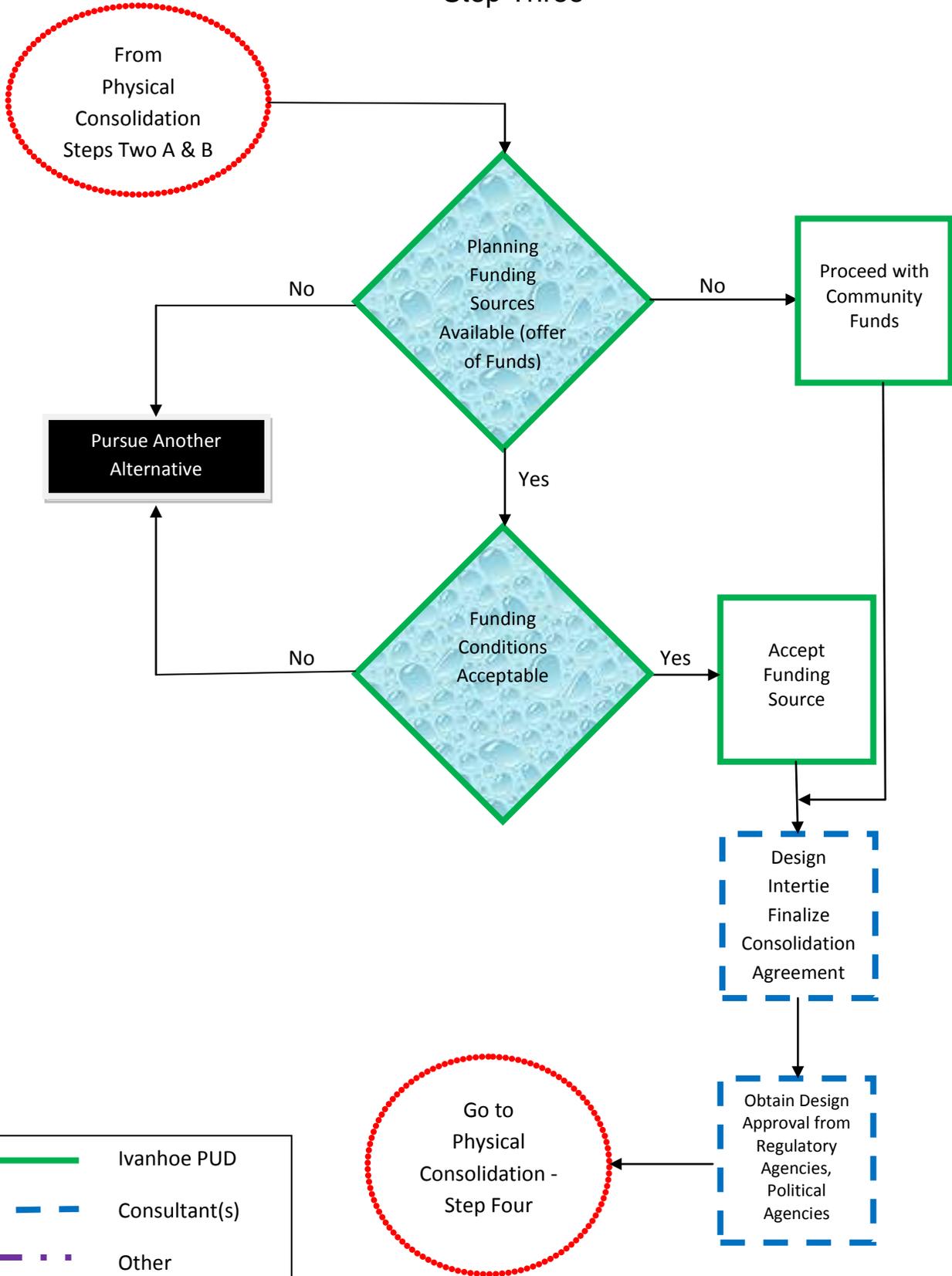
Ivanhoe PUD Physical Consolidation

Step Two B (Political)

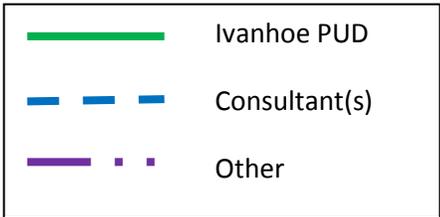
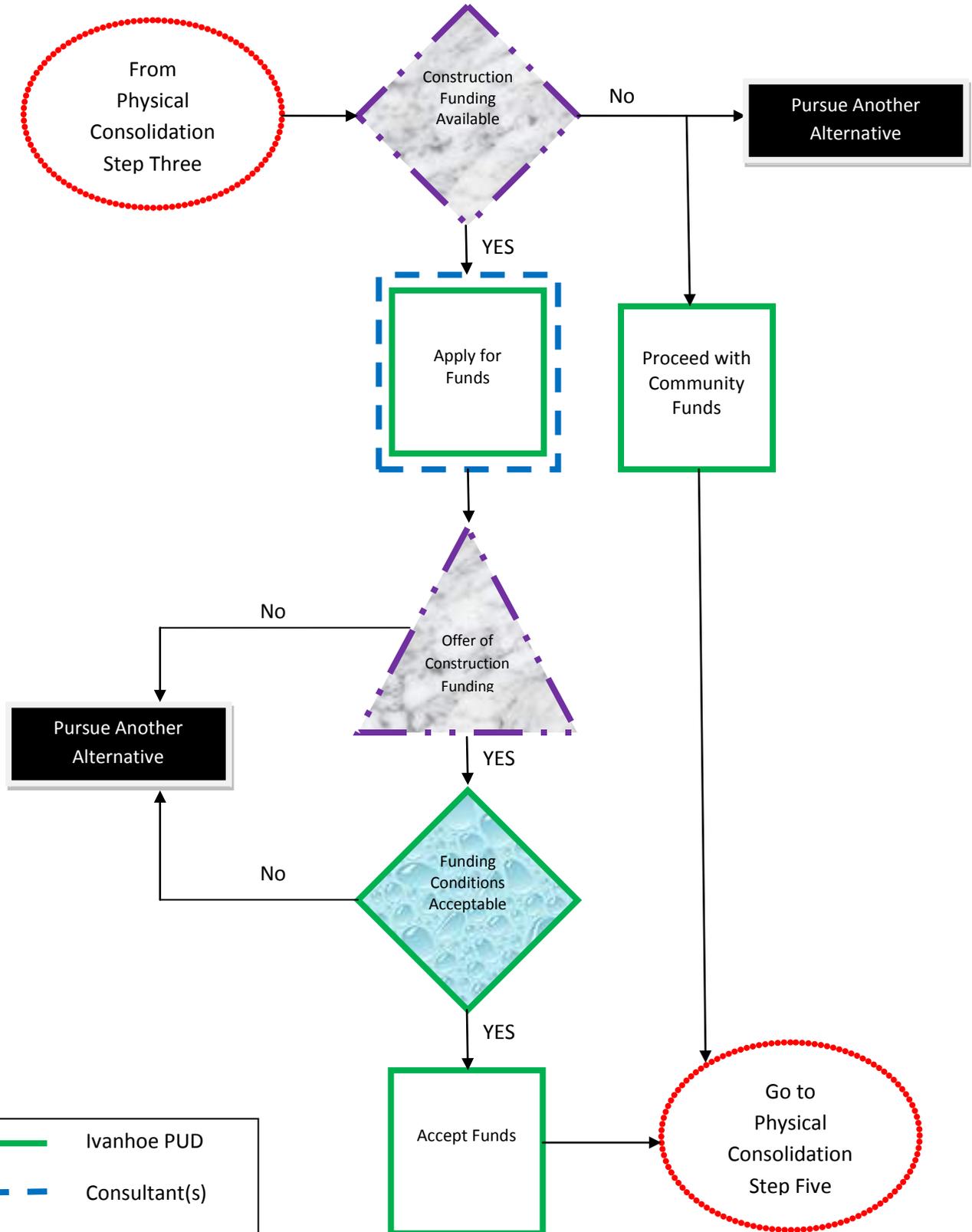


Ivanhoe PUD Physical Consolidation

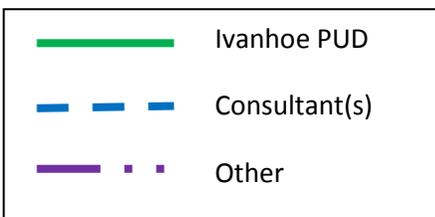
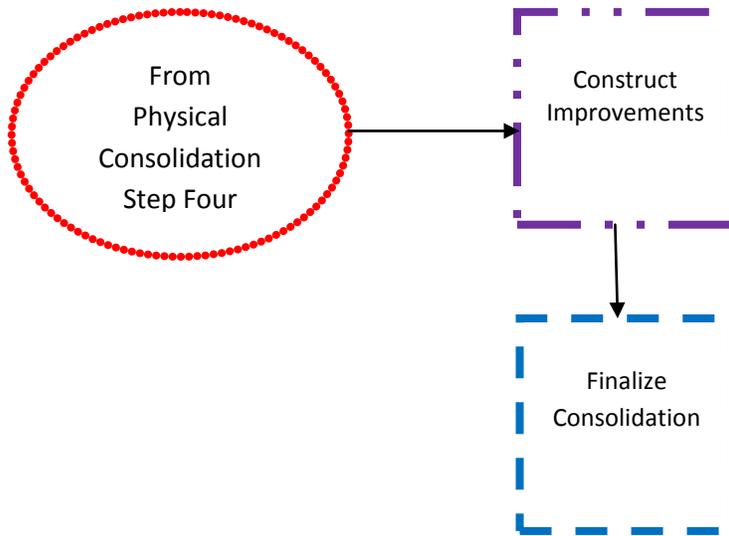
Step Three



Ivanhoe PUD Physical Consolidation Step Four



Ivanhoe PUD
Physical Consolidation
Step Five



start

Step 1

Exchanges/Contracting for Surface Water

Ivanhoe PUD

Identify Additional Source Water Supply Requirements

Investigate Availability of Surface Water Supplies

Surface Water Available?

Confirm Direct Relationship between Mitigation Alternative and Contracted Water Supply

Identify Water Quality of Surface Water

Prepare Engineering Report to Define Alternatives, Capital Costs, Operation and Maintenance Costs.

Define Recommended Alternative

Political willingness of Buyer and Seller and Other Impacted Entities

Regulatory Approval (CDPH, Other)

Identify Conveyance Facilities (existing or Proposed) Necessary for each Source

Identify Potential Losses

Identify Reliability and Cost of Surface Water Supply

Identify Redundancy of Water Supply When Surface Water is not Available

Pursue Another Alternative

Step 2b

Define Water Treatment Requirements (Existing; Modify Existing; Proposed Define Storage and Pumping Requirements

See Technical Solutions Pilot Study

Step 3

Pursue Another Alternative

Funding Sources Available (offer of Funds)

Pursue Another Alternative

Prepare Funding Application

Step 5

Offer of Funds

Pursue Another Alternative

Pursue Another Alternative

Implement Surface Water Delivery and Treatment

Construct Improvements

Finalize Agreement Design Improvements CEQA Compliance

Proposition 218 Passes

Proceed with Proposition 218 to Define Rate Structures

Step 6

Pursue Another Alternative

Funding Conditions Acceptable

Implement Surface Water Delivery and Treatment

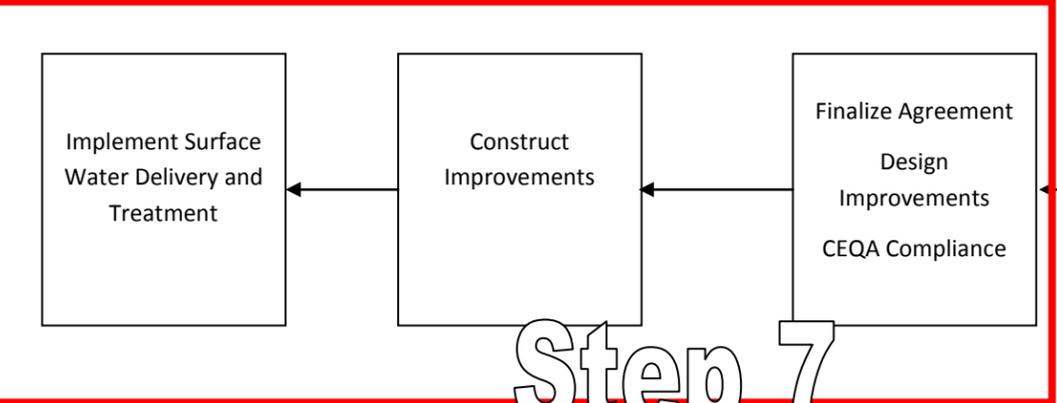
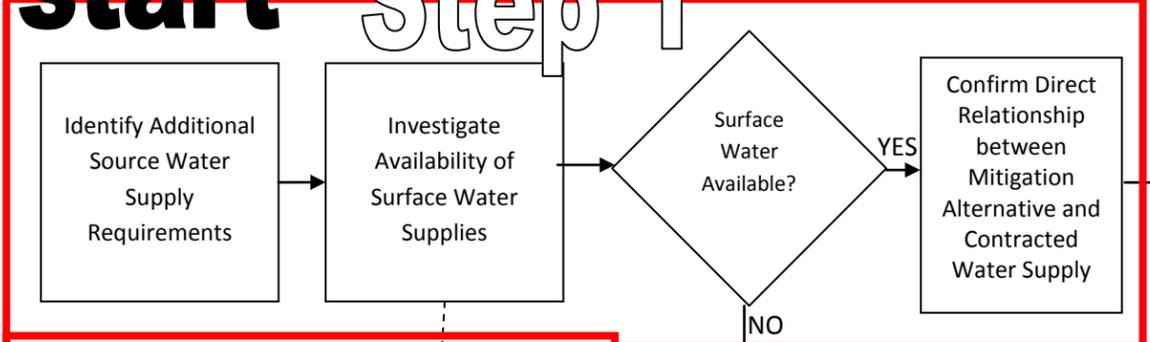
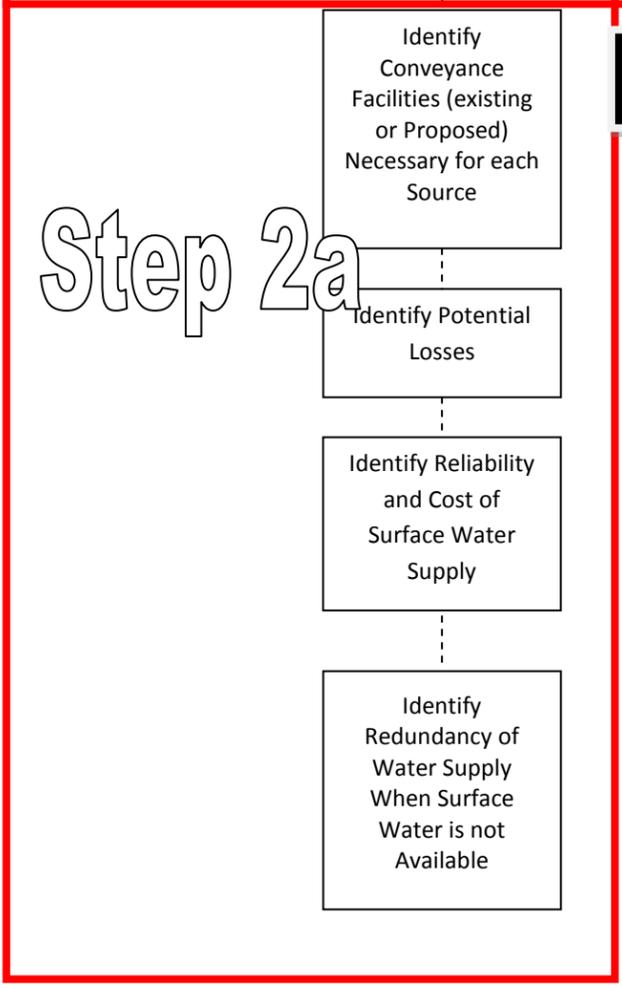
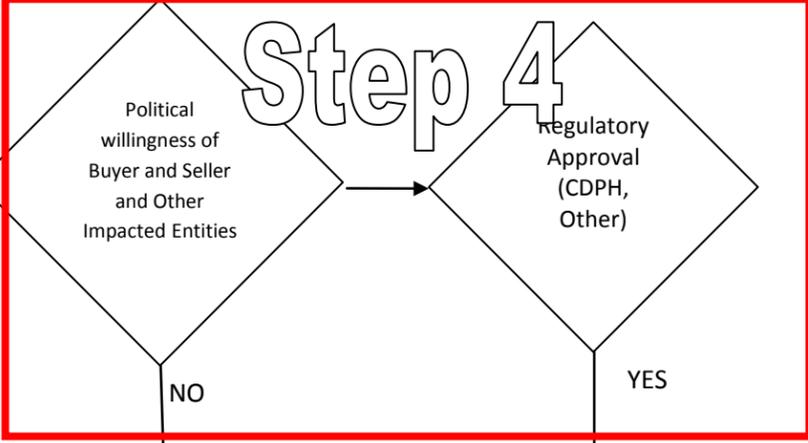
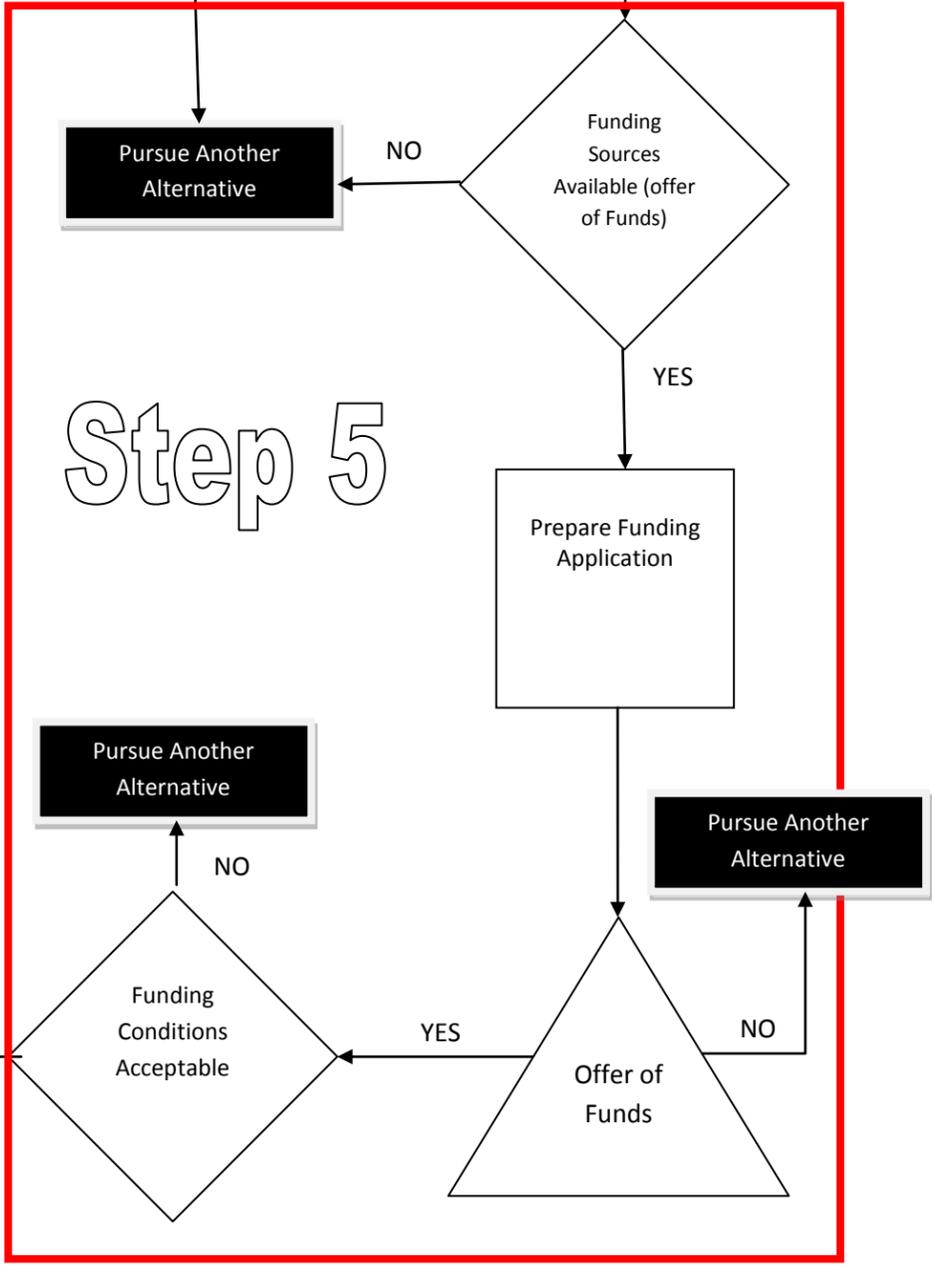
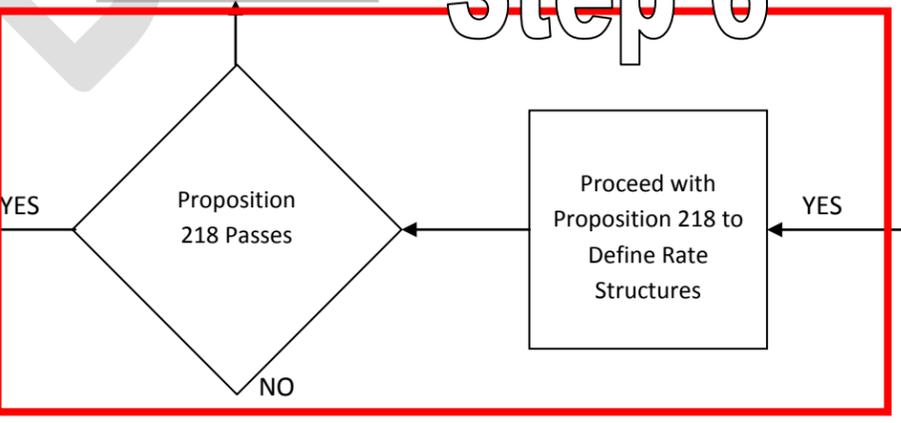
Construct Improvements

Finalize Agreement Design Improvements CEQA Compliance

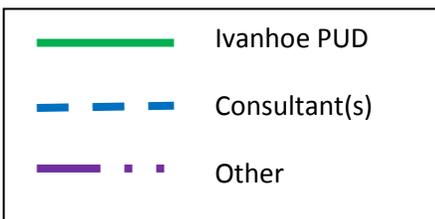
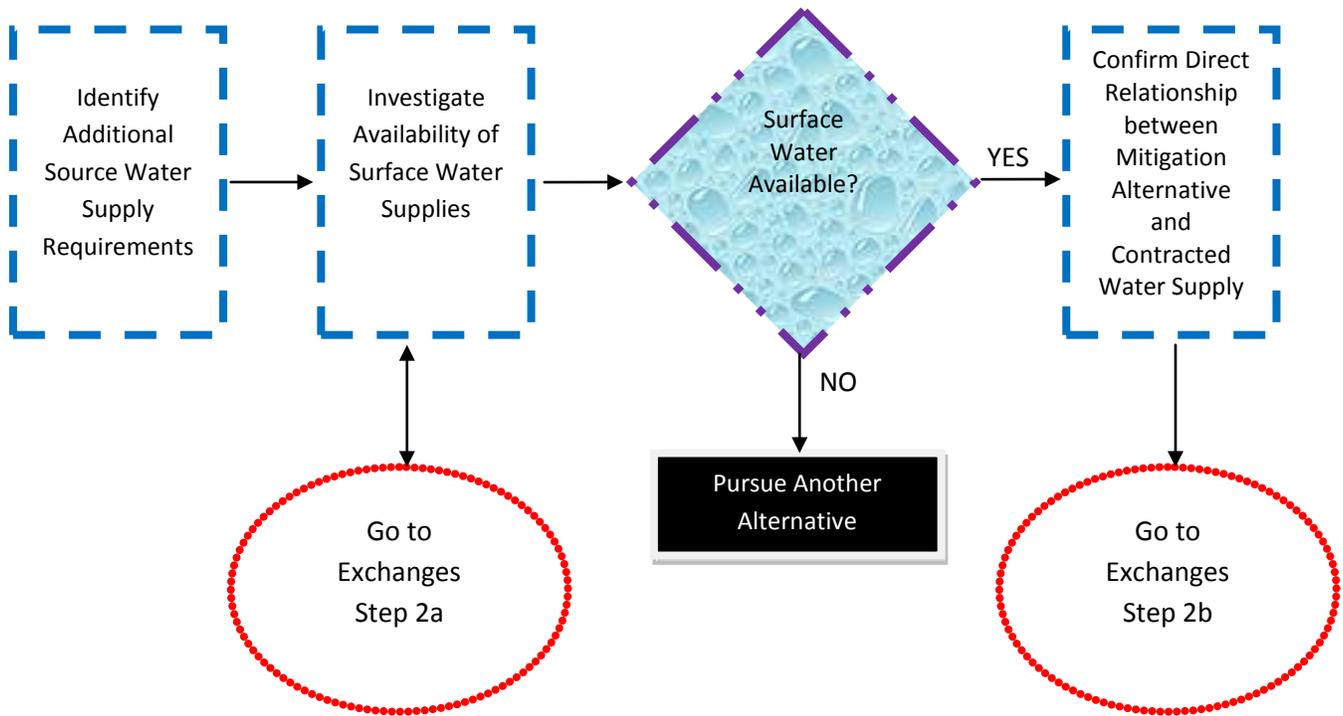
Proposition 218 Passes

Proceed with Proposition 218 to Define Rate Structures

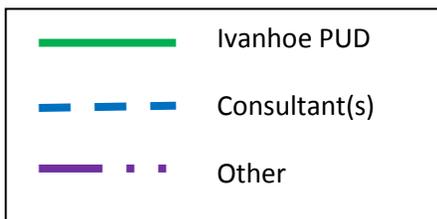
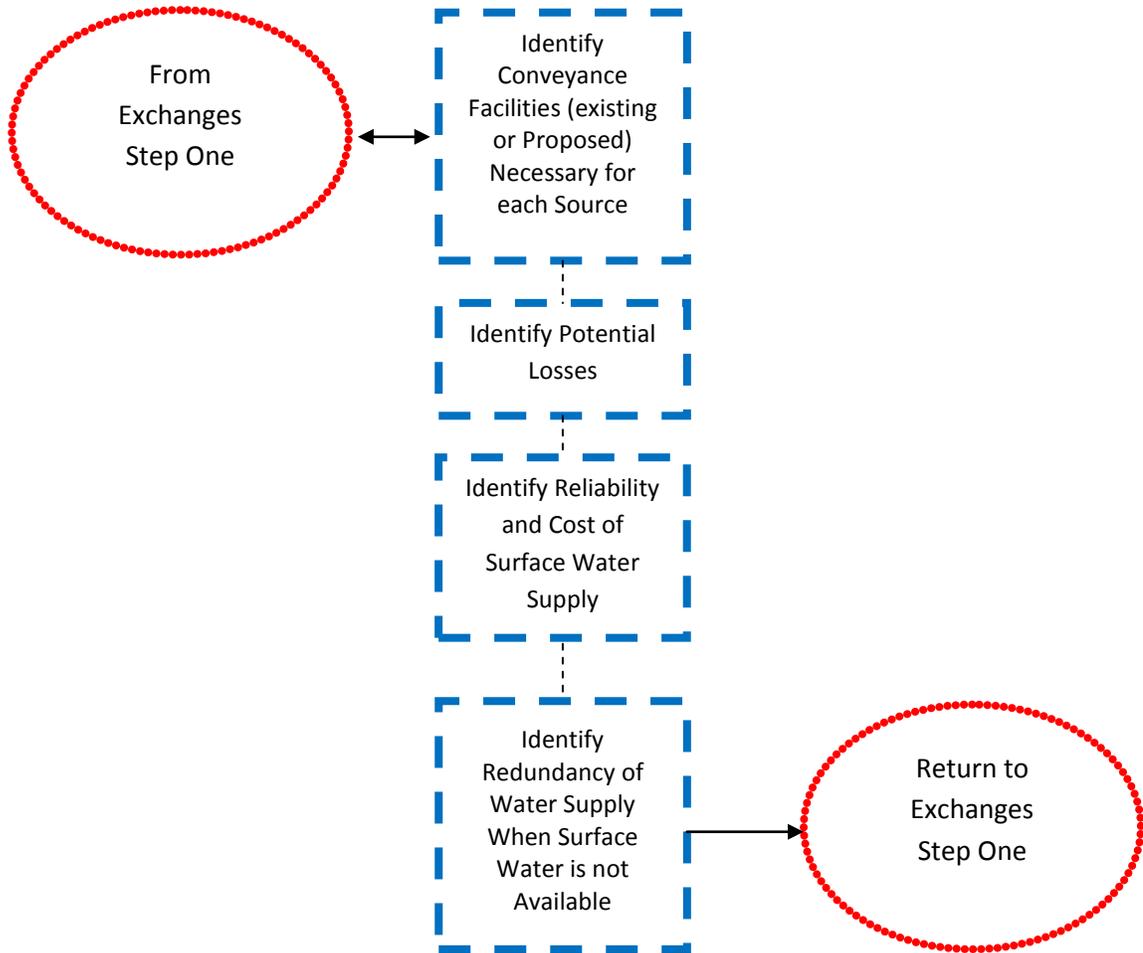
Step 7



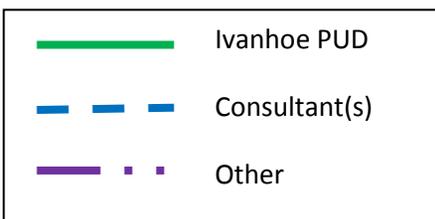
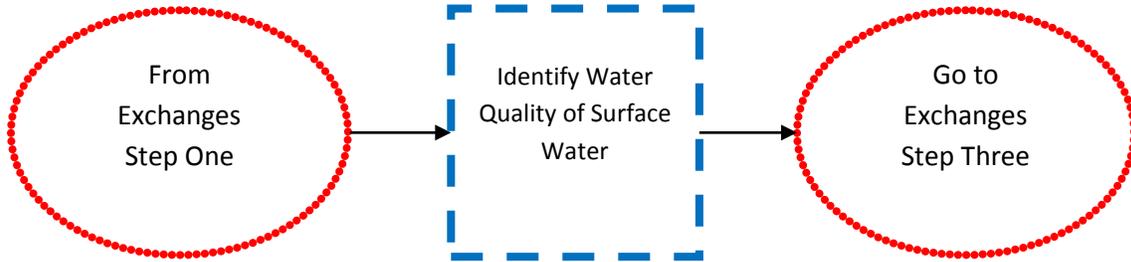
Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step One



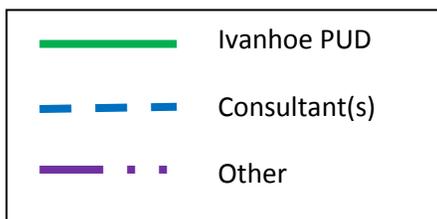
Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Two a



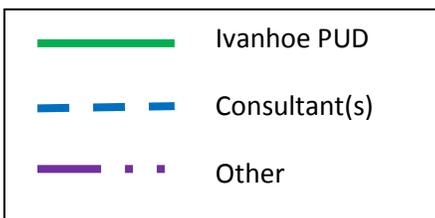
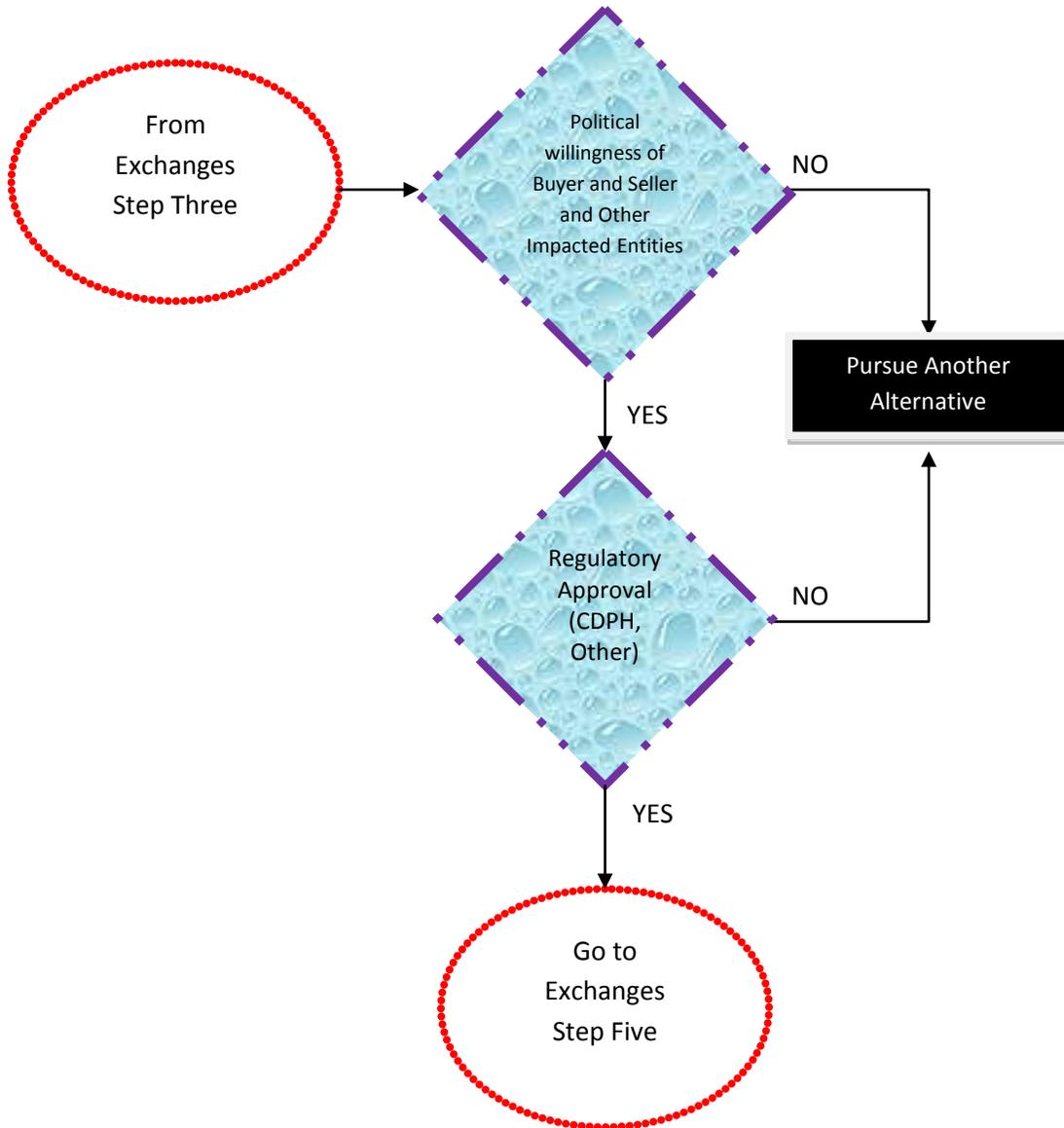
Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Two b



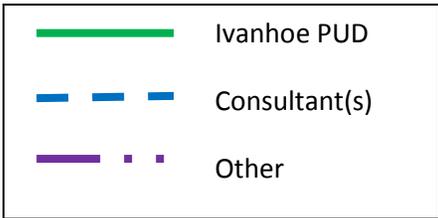
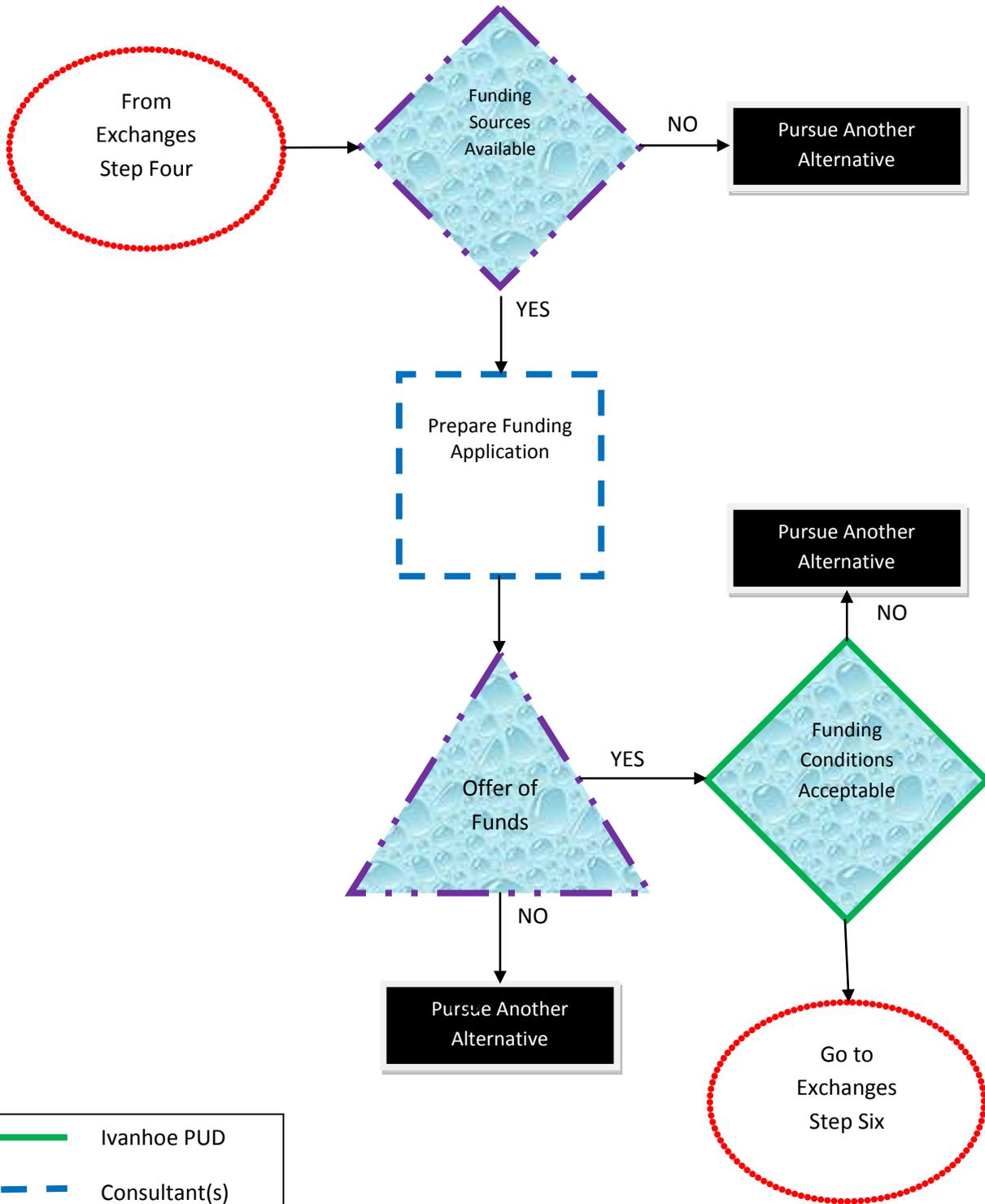
Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Three



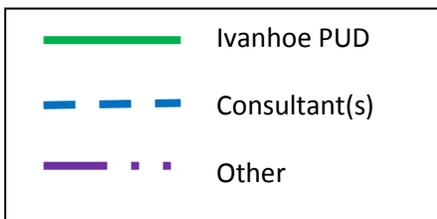
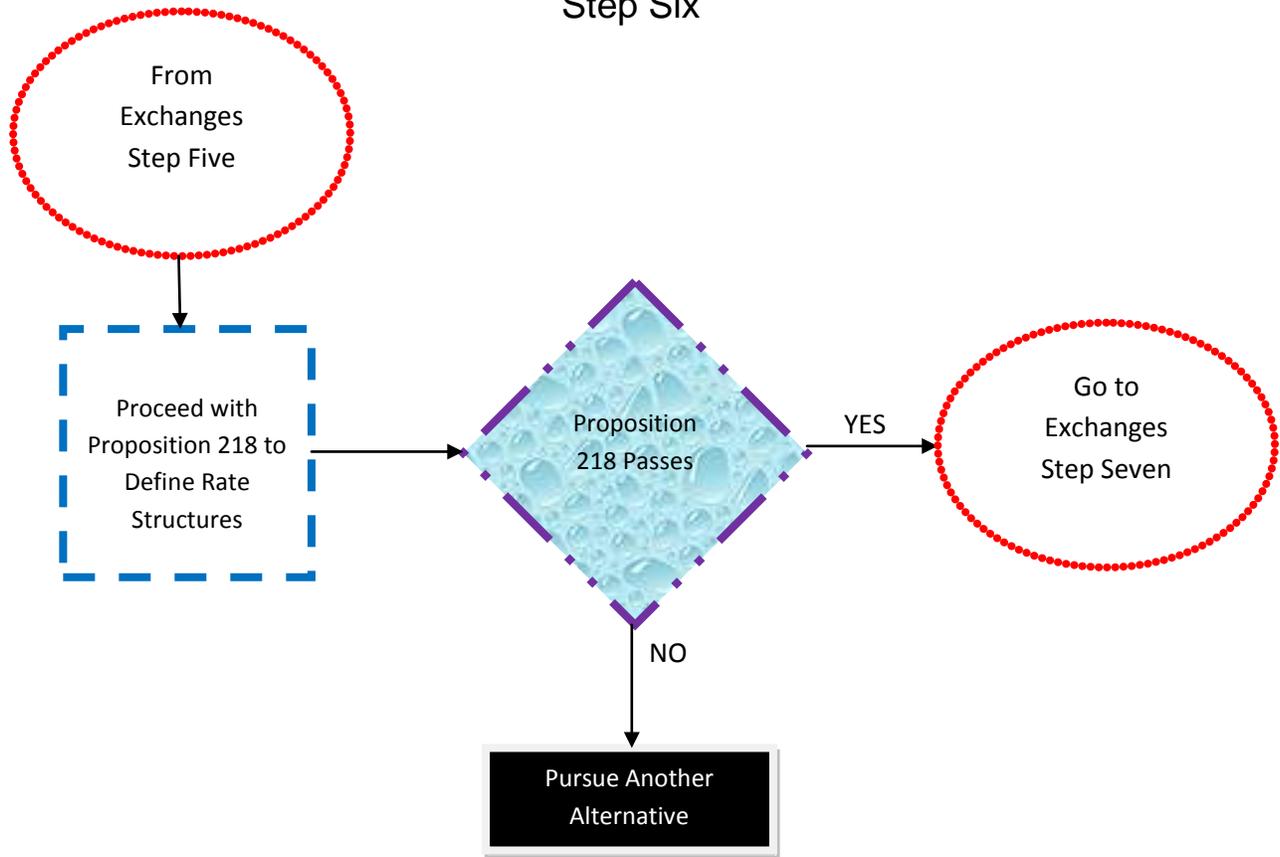
Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Four



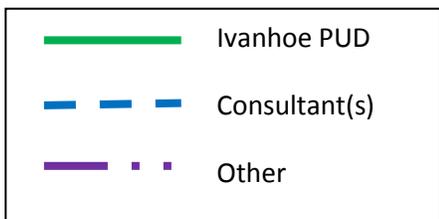
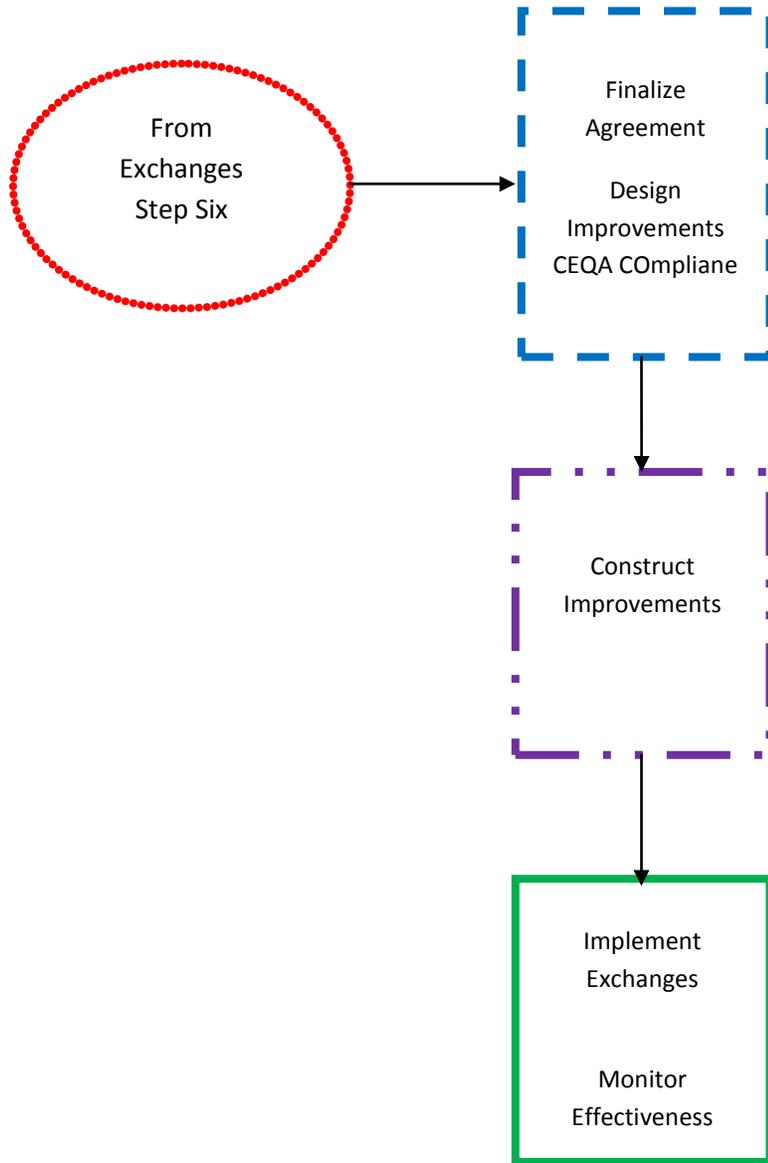
Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Five



Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Six



Ivanhoe PUD
Exchanges/Contracting for Surface Water
Step Seven

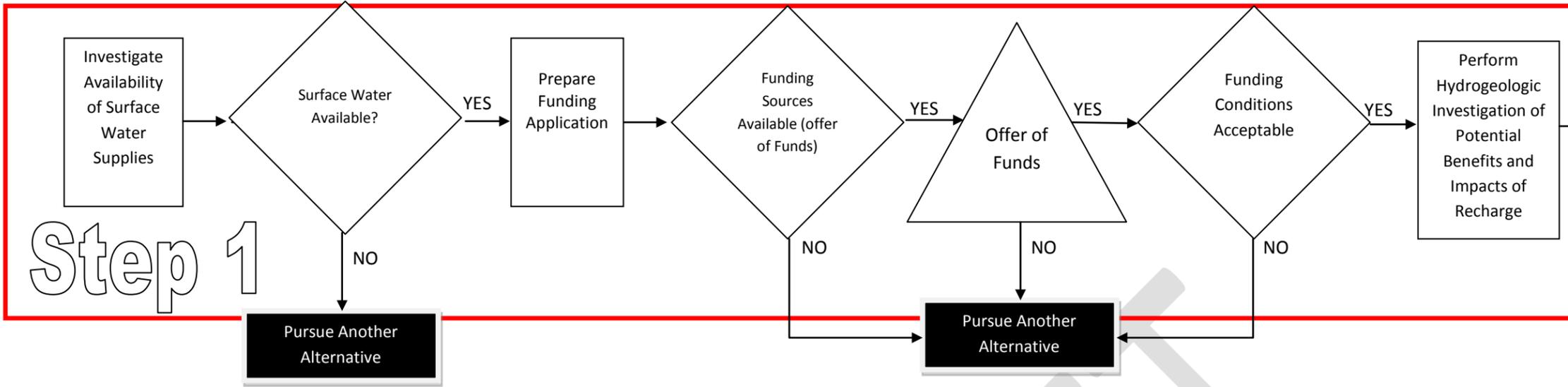


start

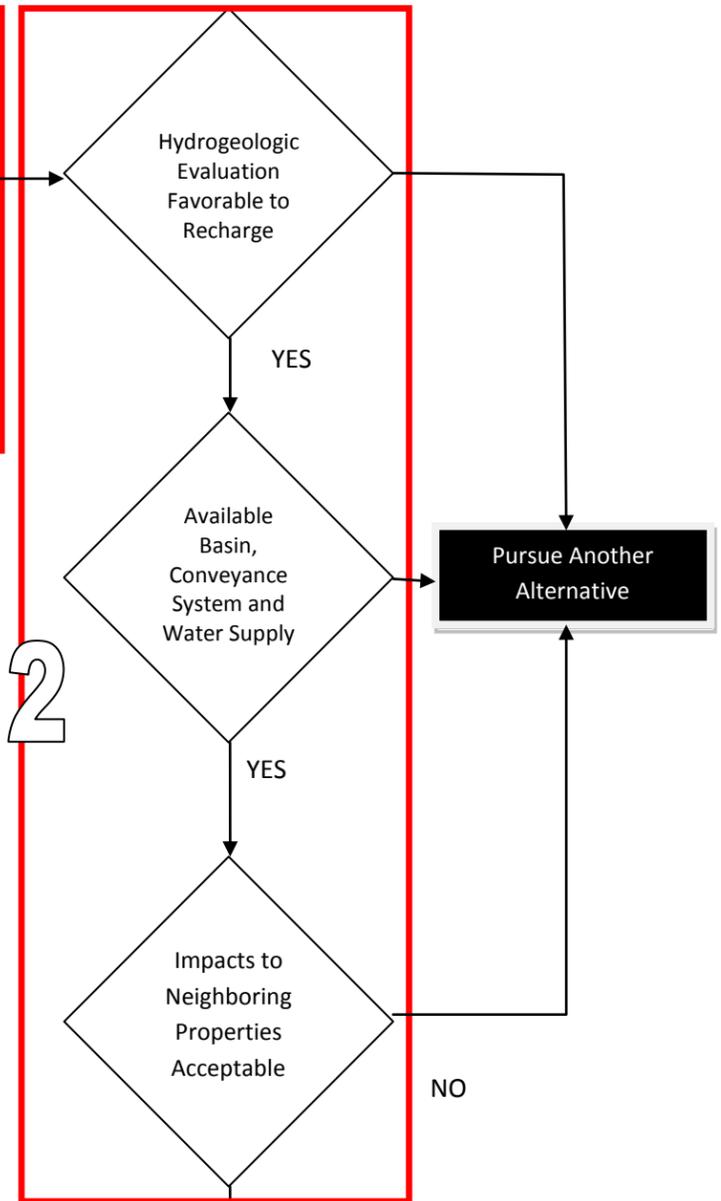
Recharge of Local Area

Ivanhoe PUD

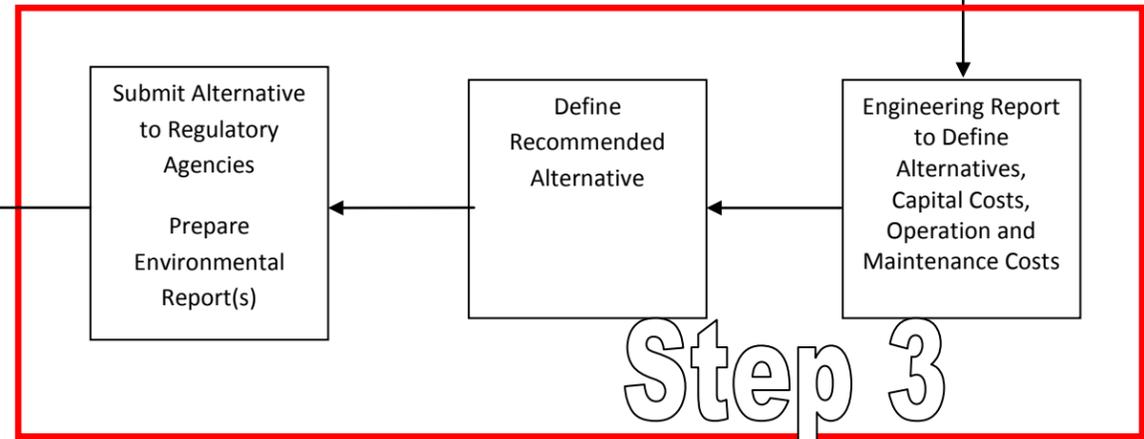
Step 1



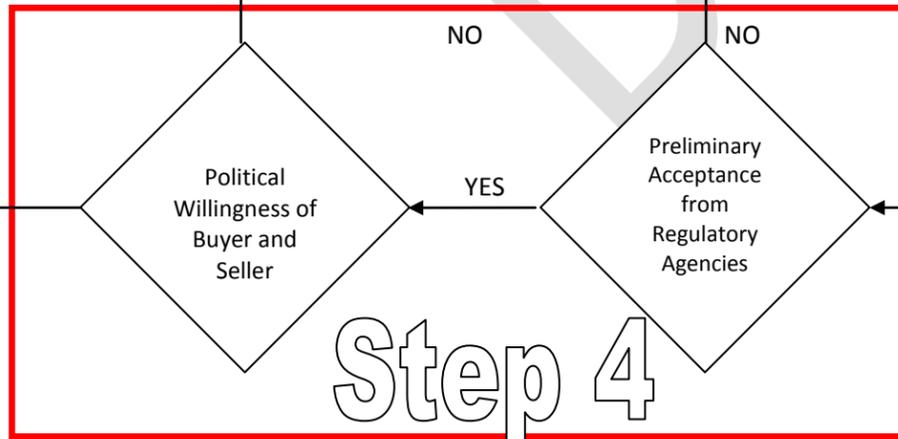
Step 2



Step 3



Step 4



See Recharge of Local Area Page 2 of 2

Pursue Another Alternative

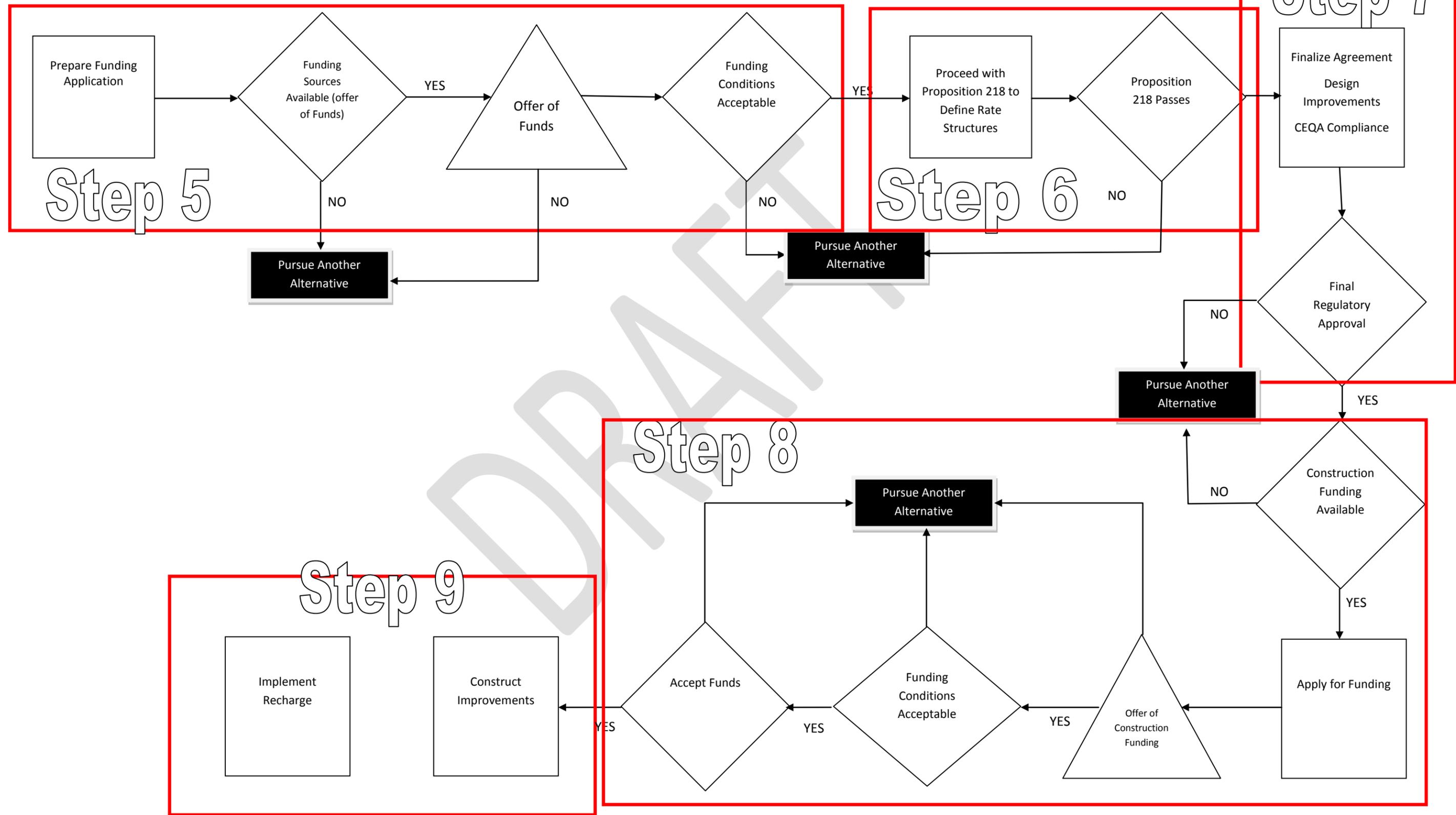
Pursue Another Alternative

NO

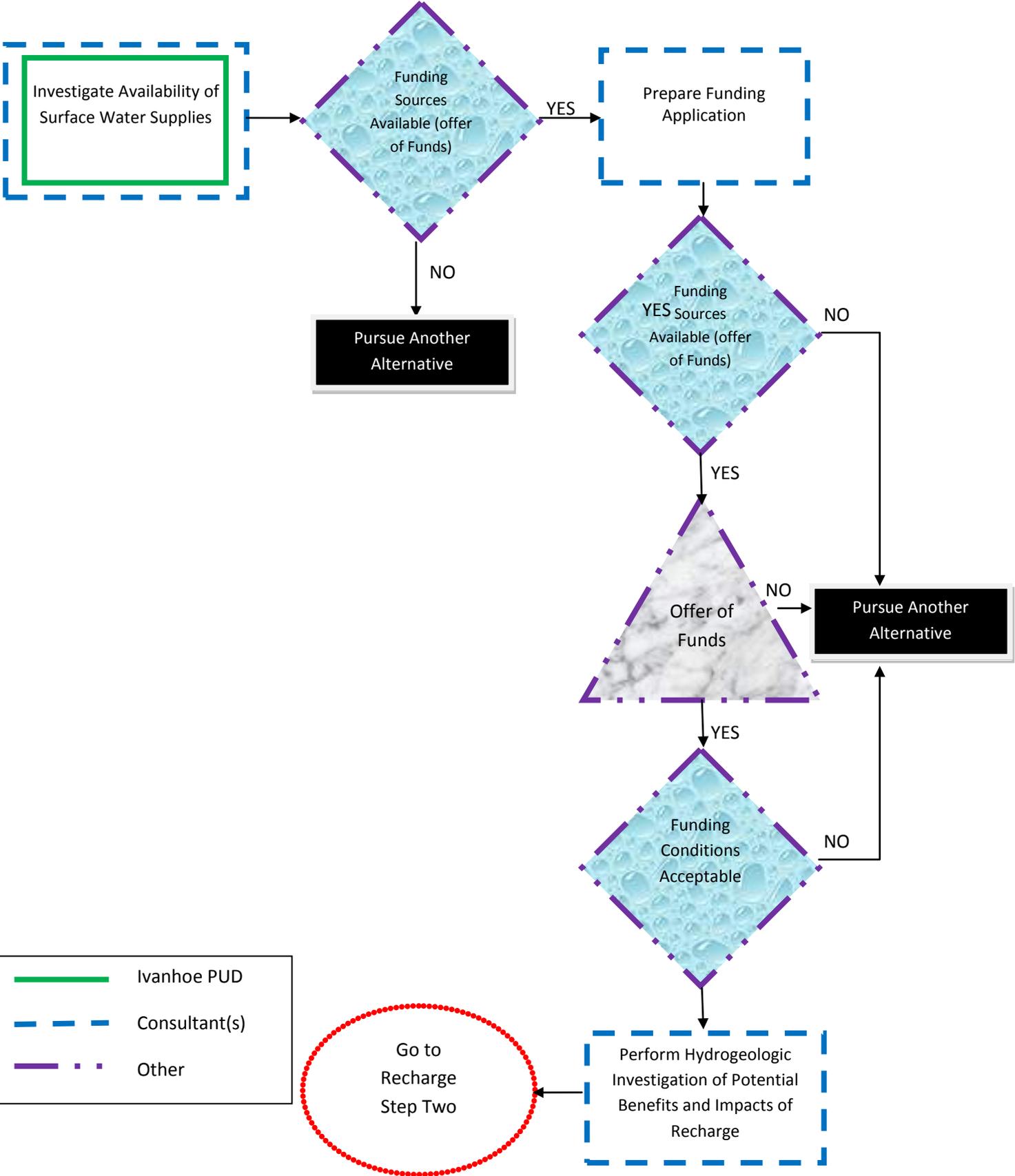
Recharge of Local Area

Ivanhoe PUD

See Recharge of Local Area Page 1 of 2

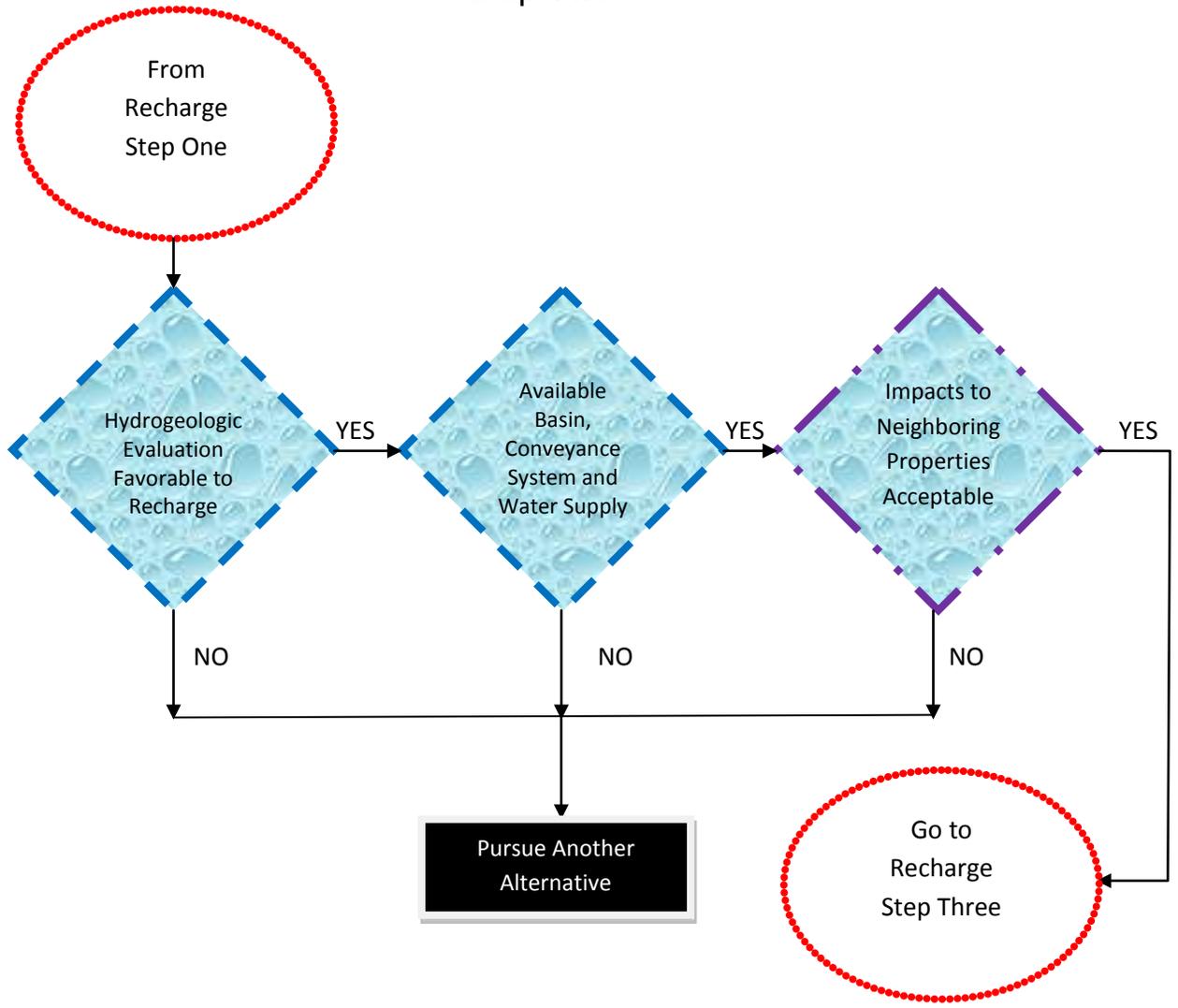


Ivanhoe PUD
Recharge of Local Area
Step One



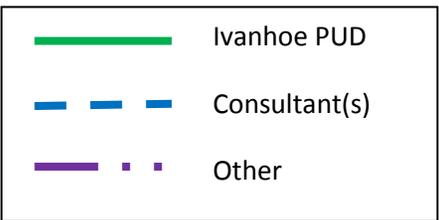
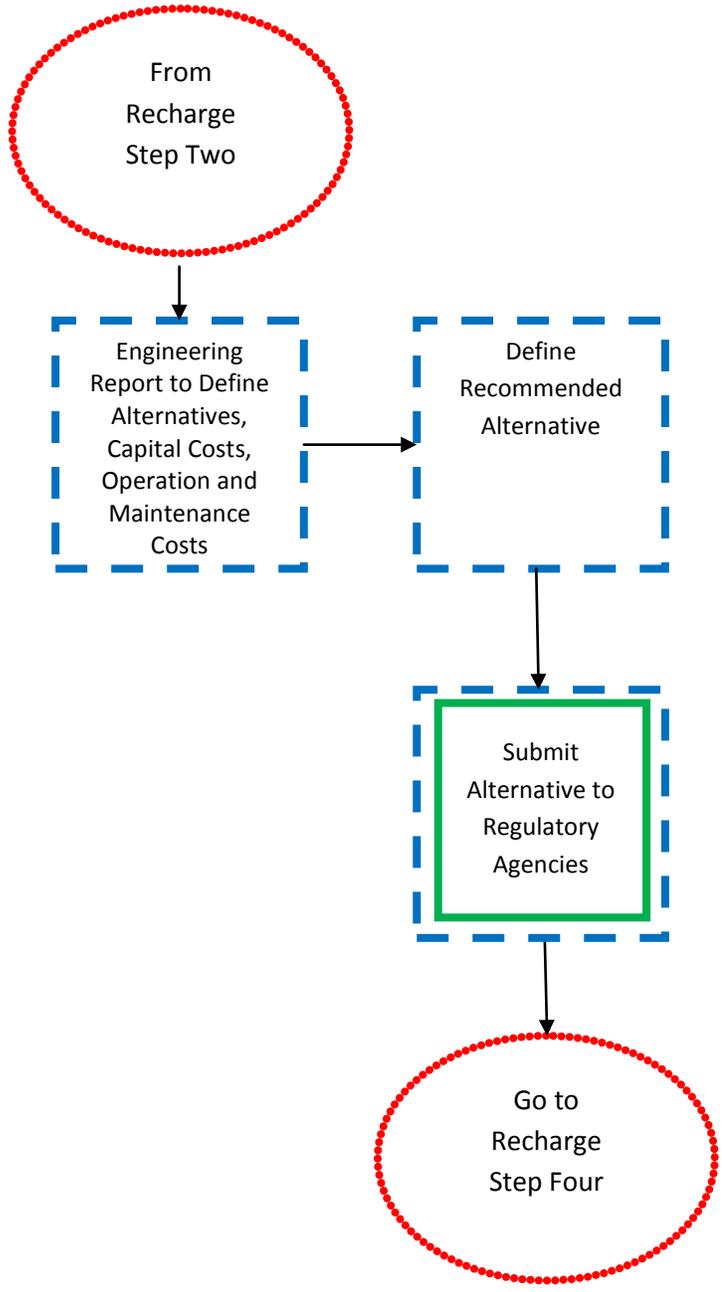
- Ivanhoe PUD
- Consultant(s)
- Other

Ivanhoe PUD
Recharge of Local Area
Step Two

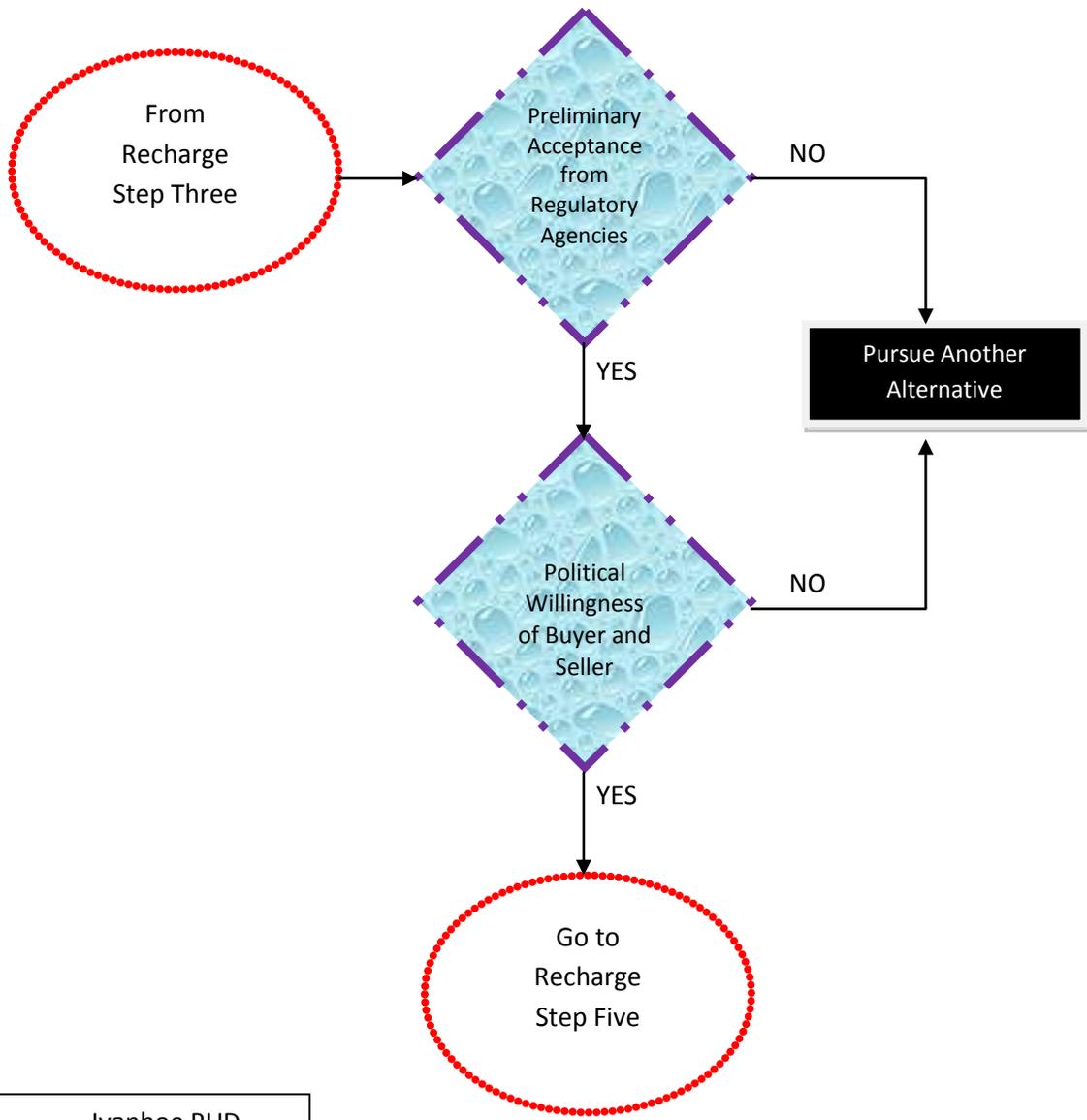


- Ivanhoe PUD
- Consultant(s)
- Other

Ivanhoe PUD
Recharge of Local Area
Step Three

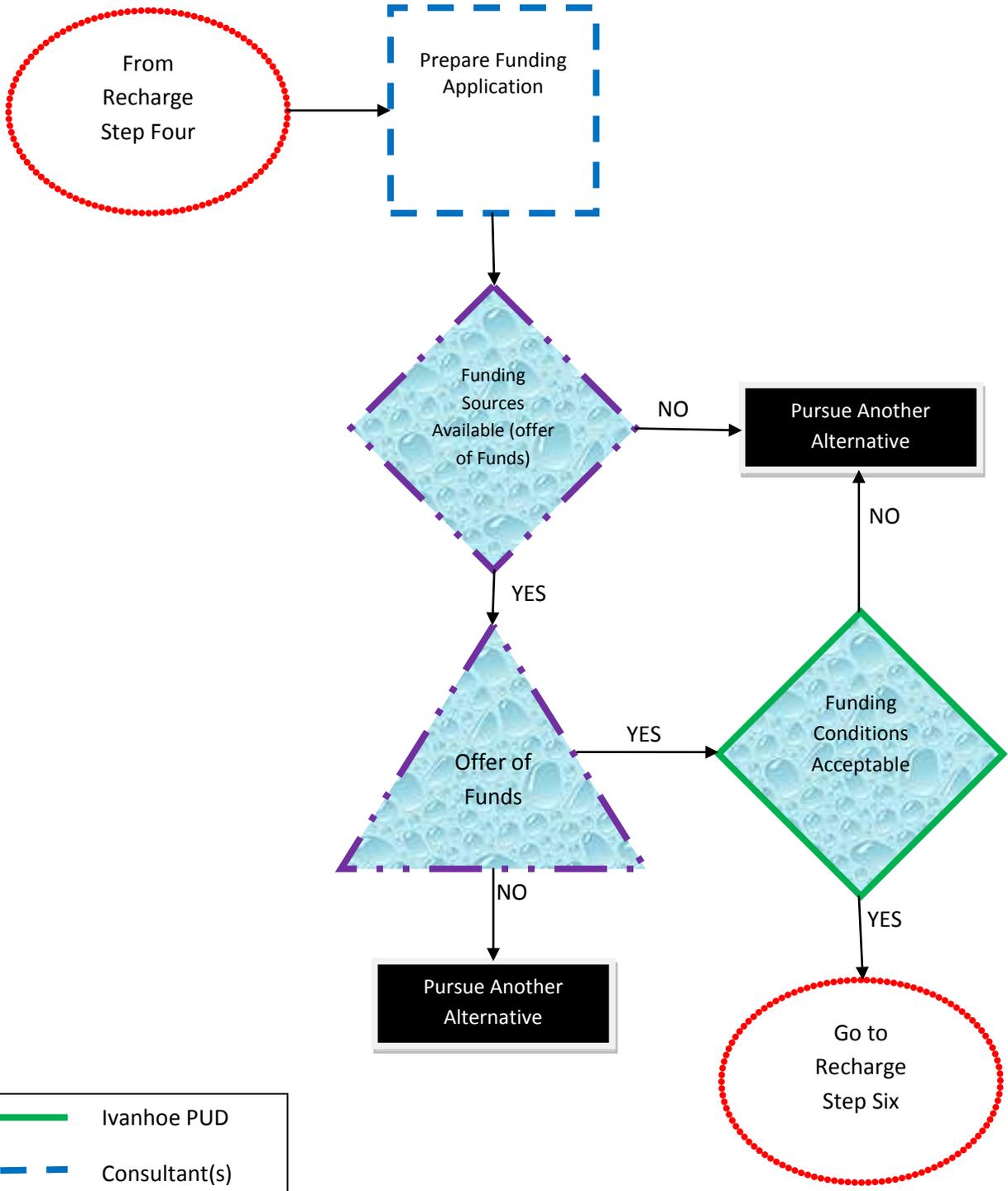


Ivanhoe PUD
Recharge of Local Area
Step Four



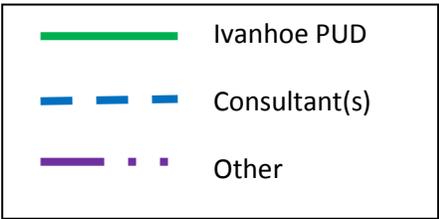
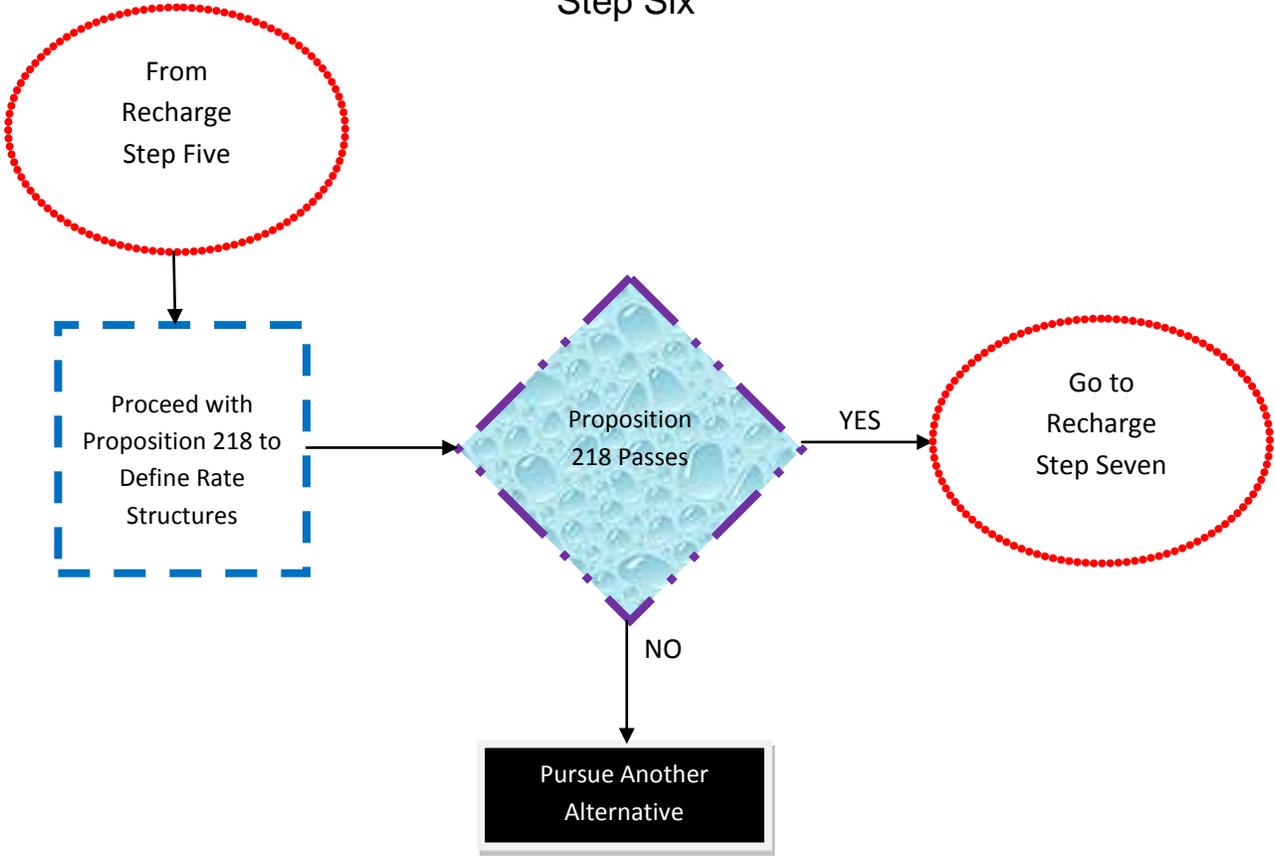
	Ivanhoe PUD
	Consultant(s)
	Other

Ivanhoe PUD
Recharge of Local Area
Step Five

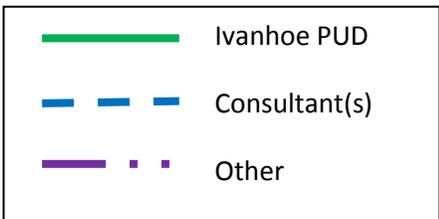
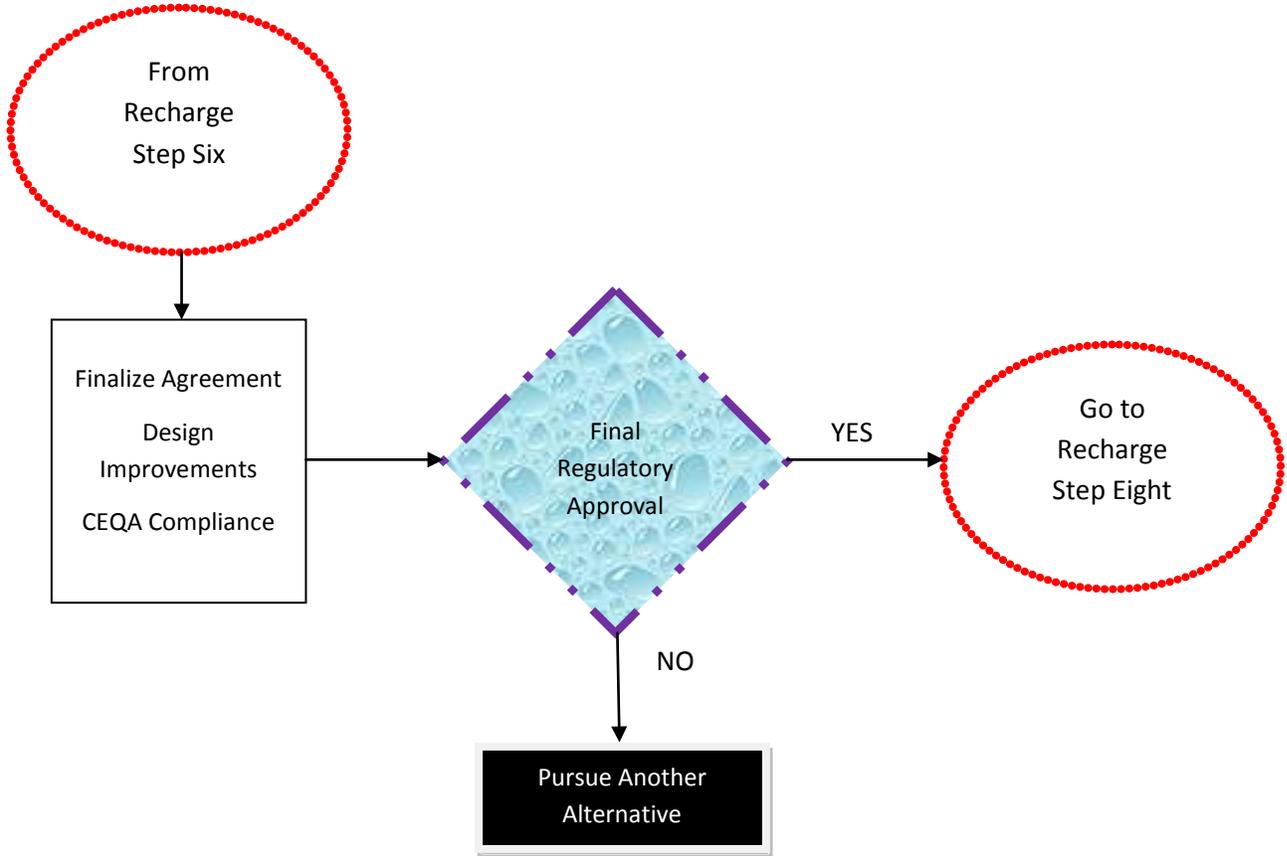


- Ivanhoe PUD
- Consultant(s)
- Other

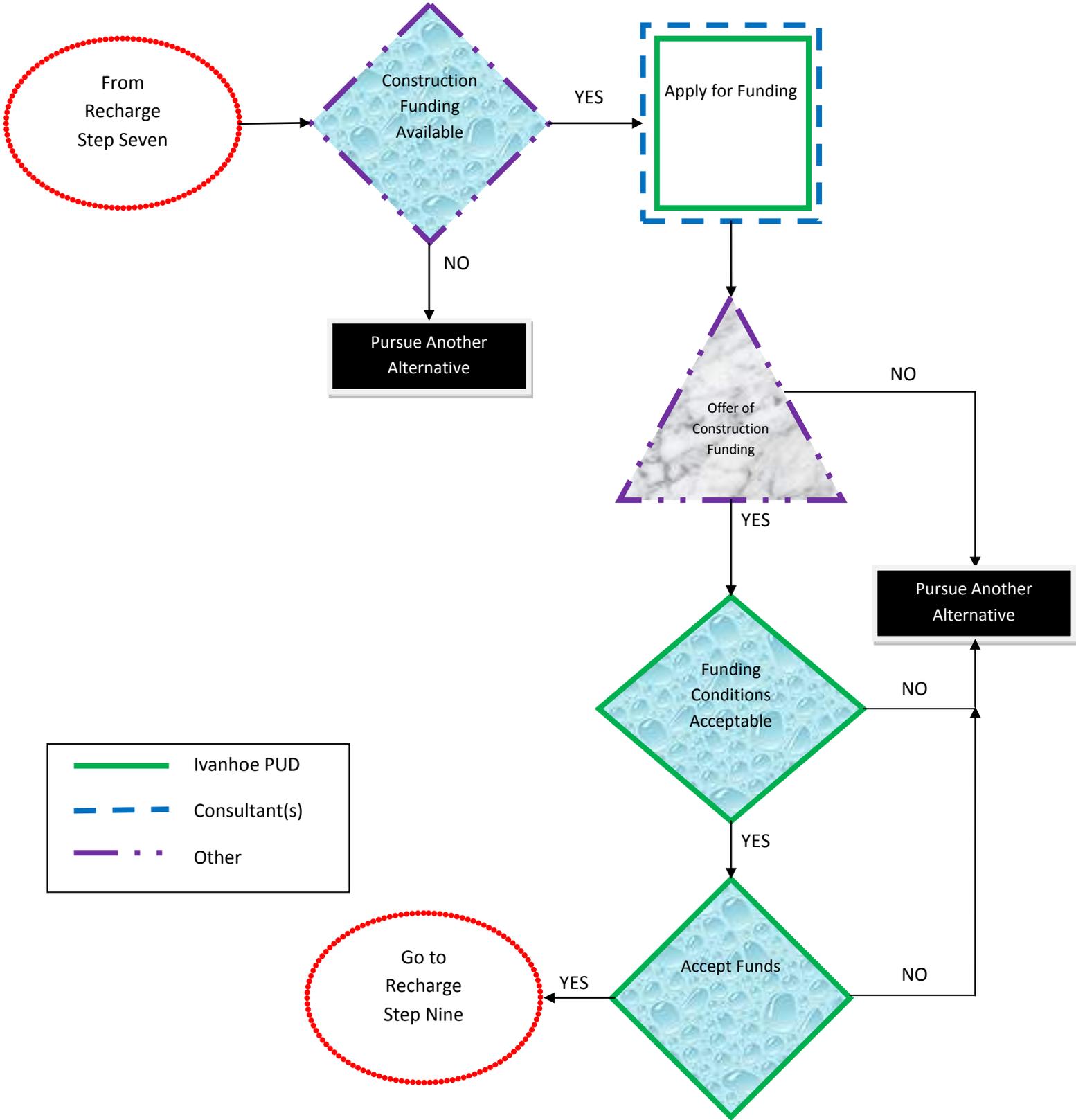
Ivanhoe PUD
Recharge of Local Area
Step Six



Ivanhoe PUD
Recharge of Local Area
Step Seven

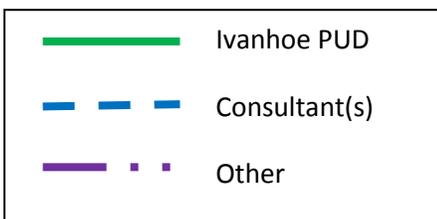
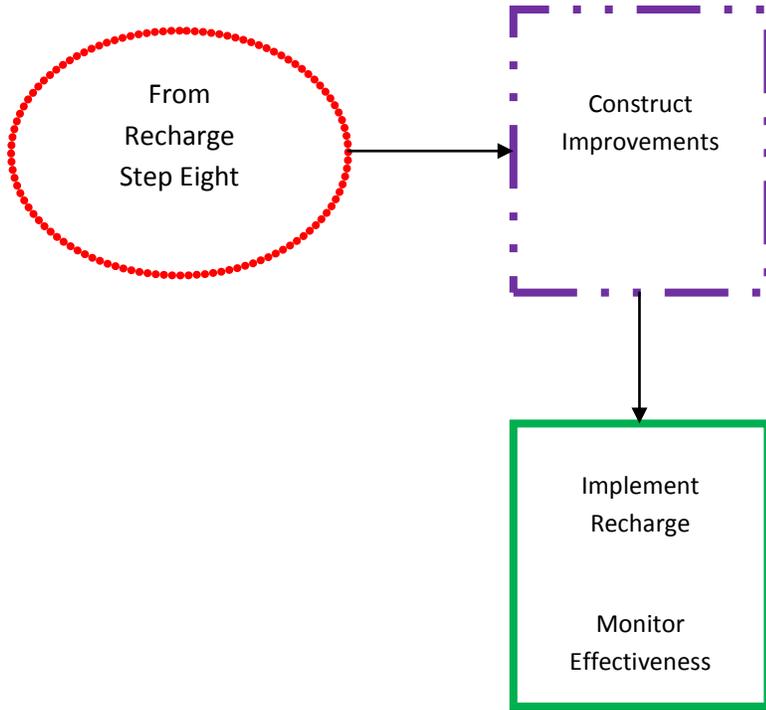


Ivanhoe PUD Recharge of Local Area Step Eight

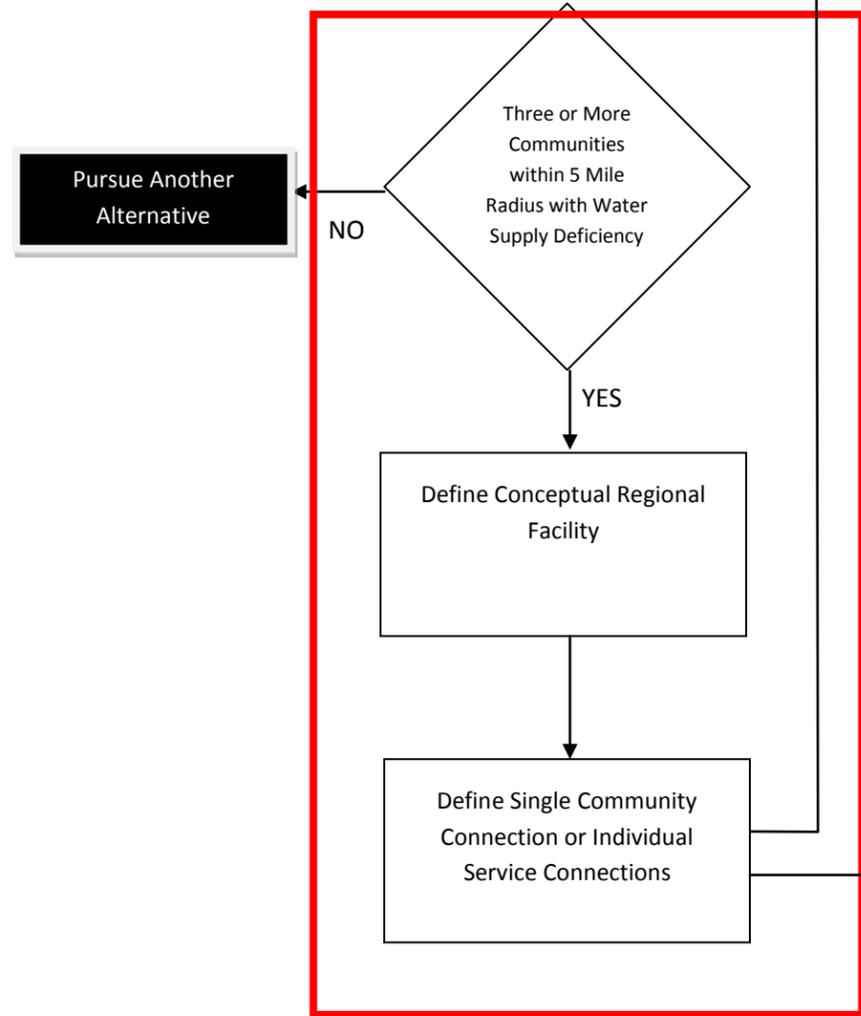


Ivanhoe PUD

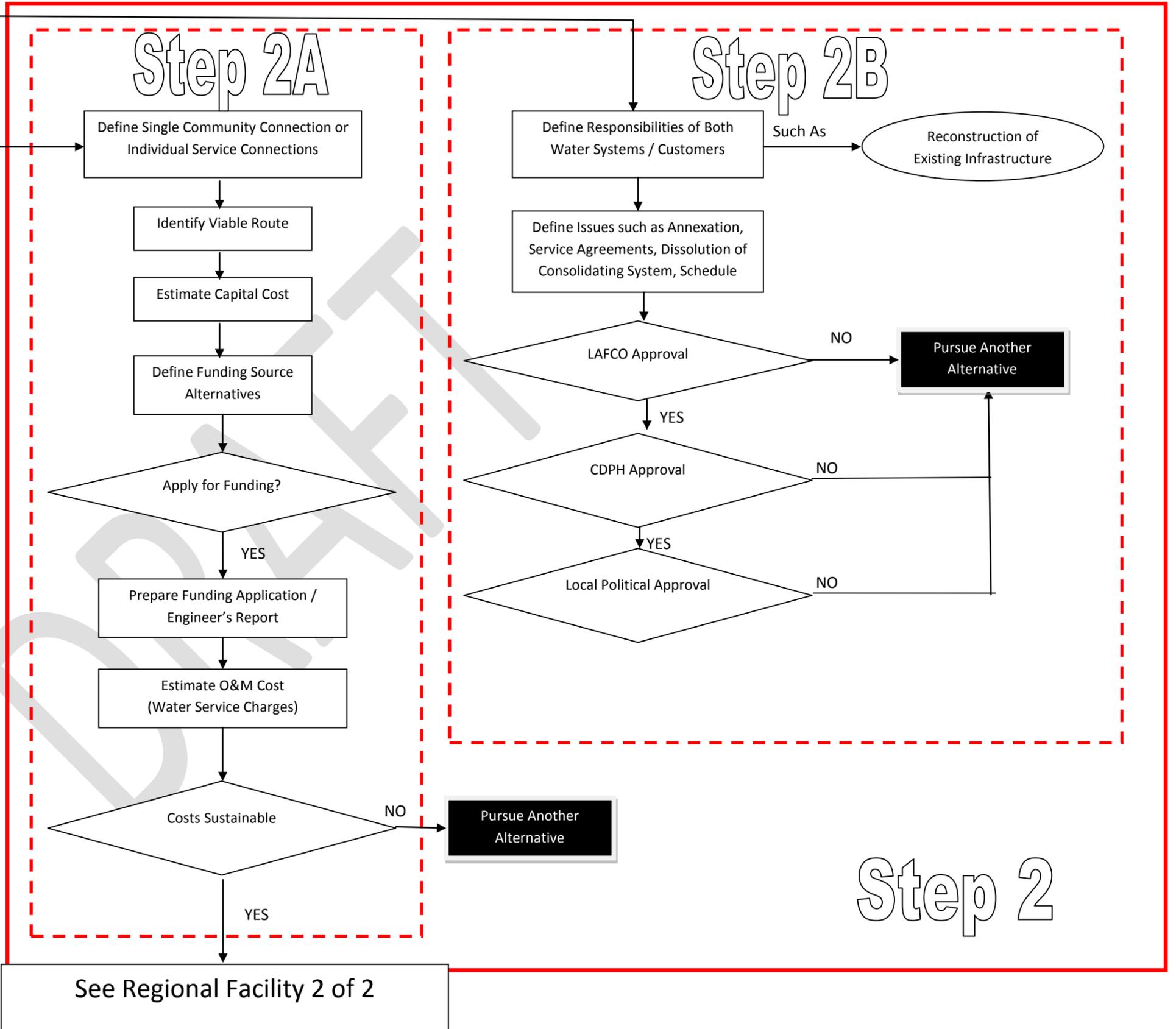
Recharge of Local Area



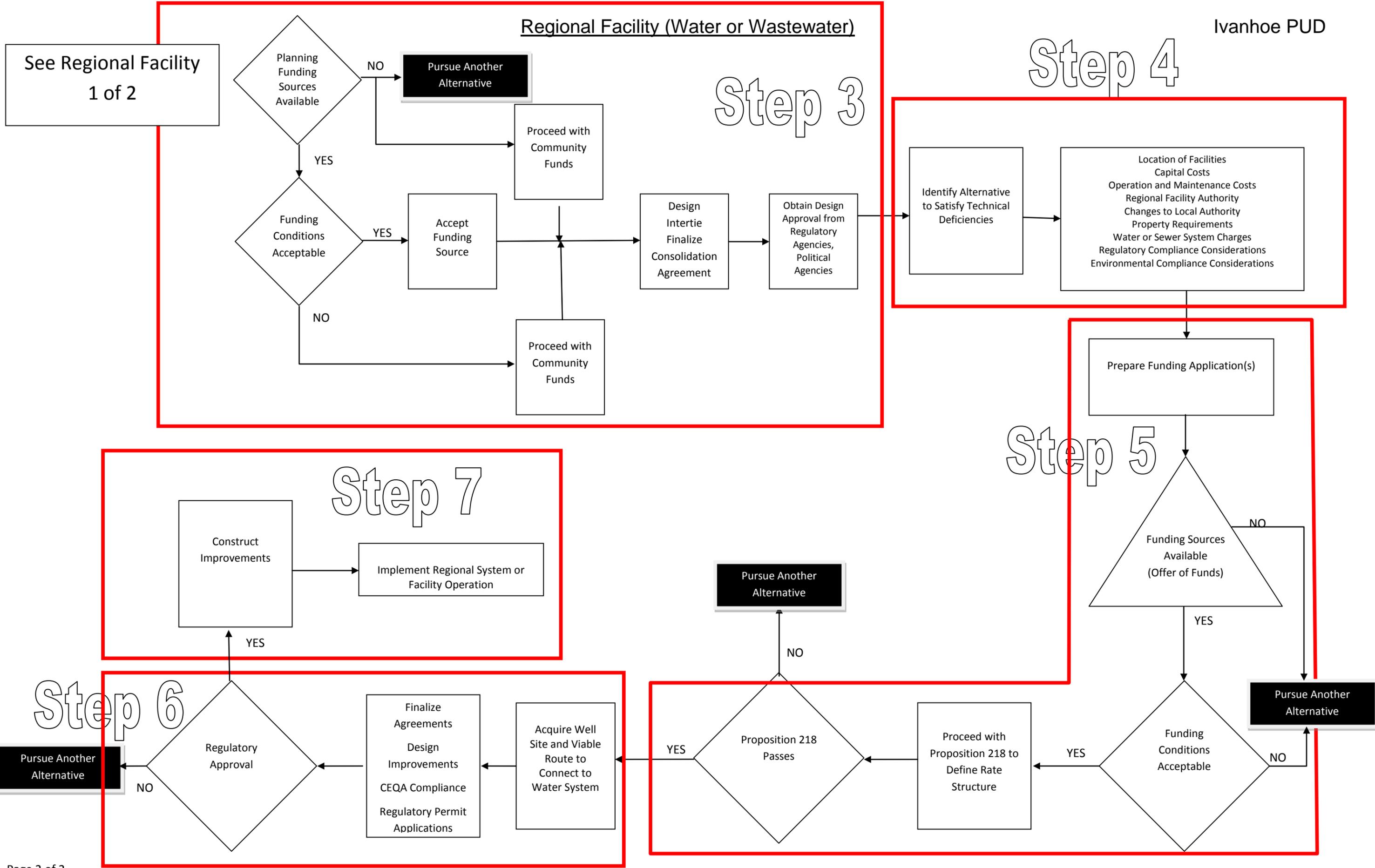
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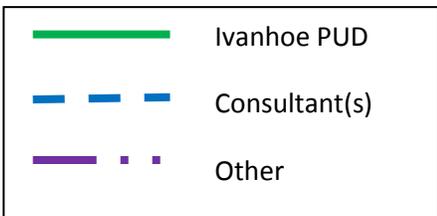
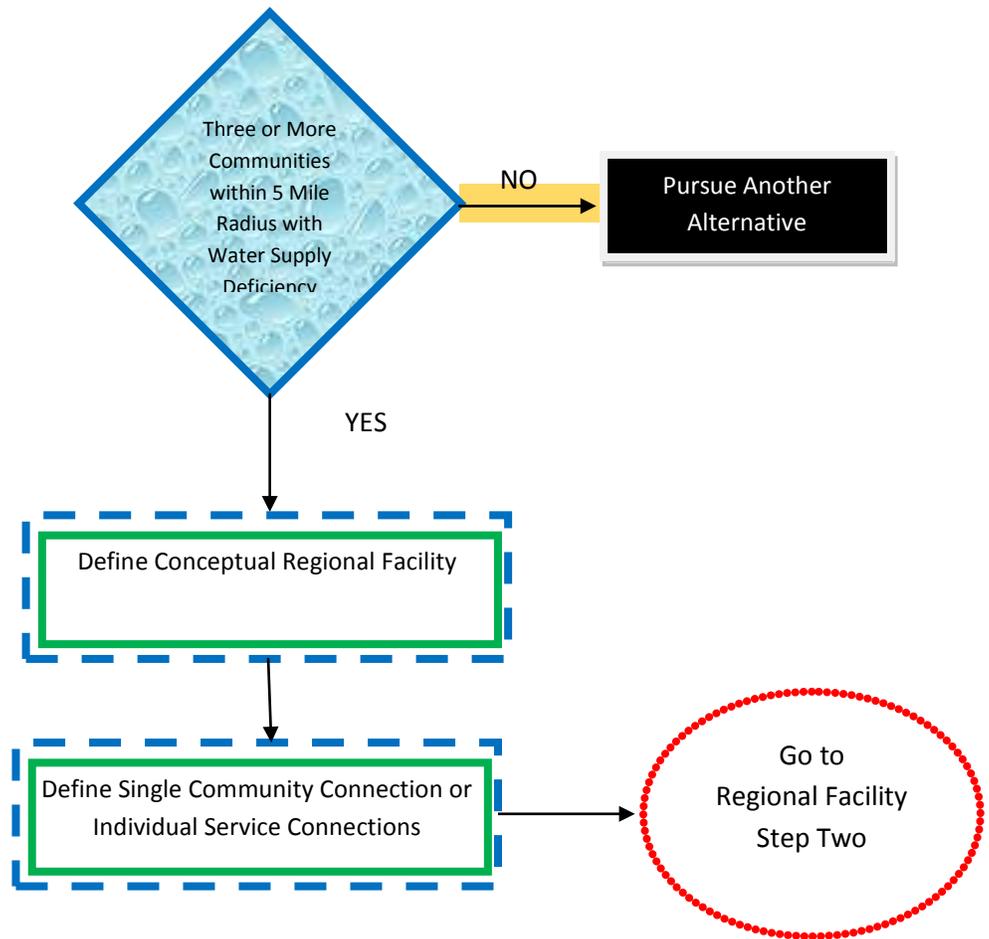
Step 1



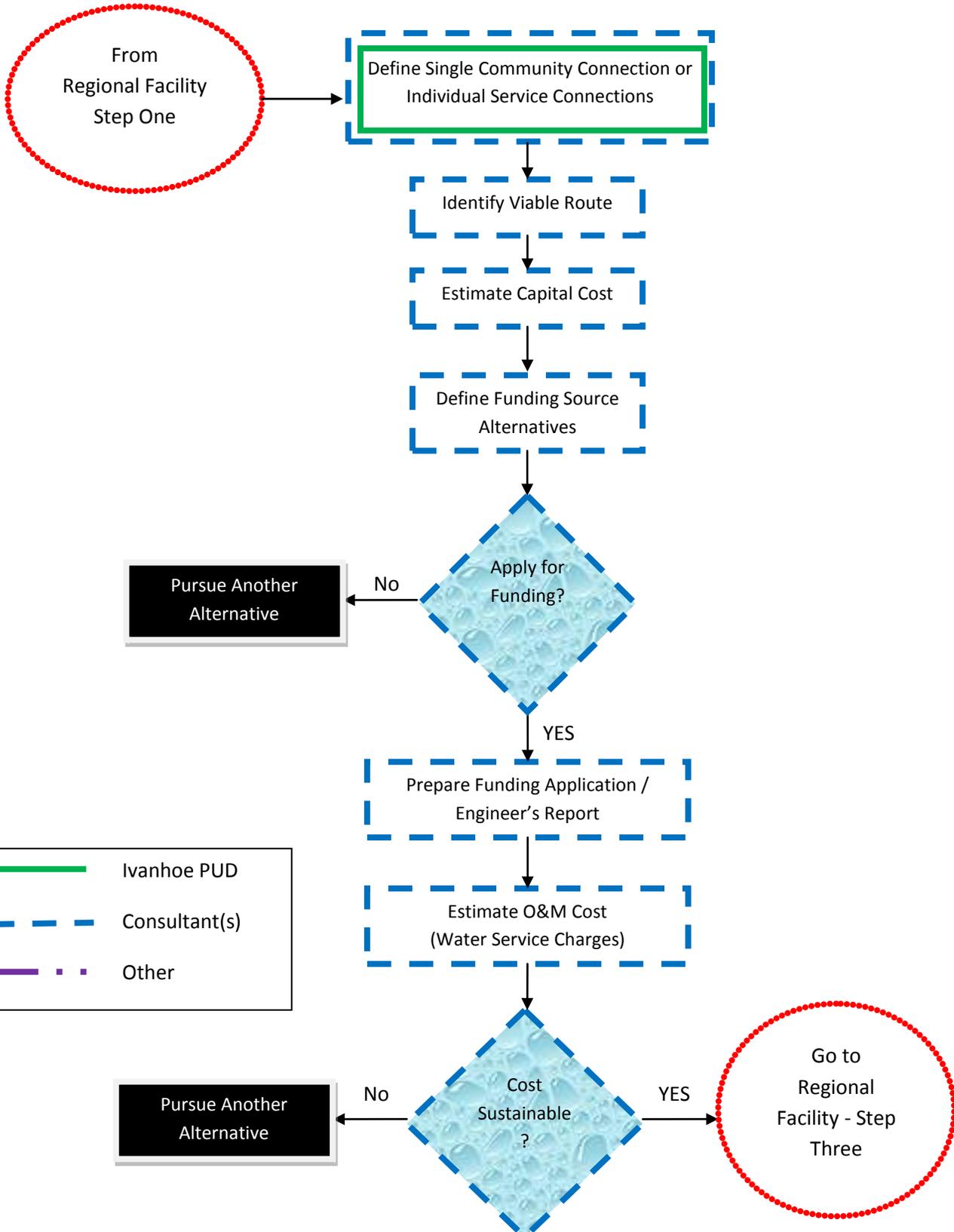
Step 2



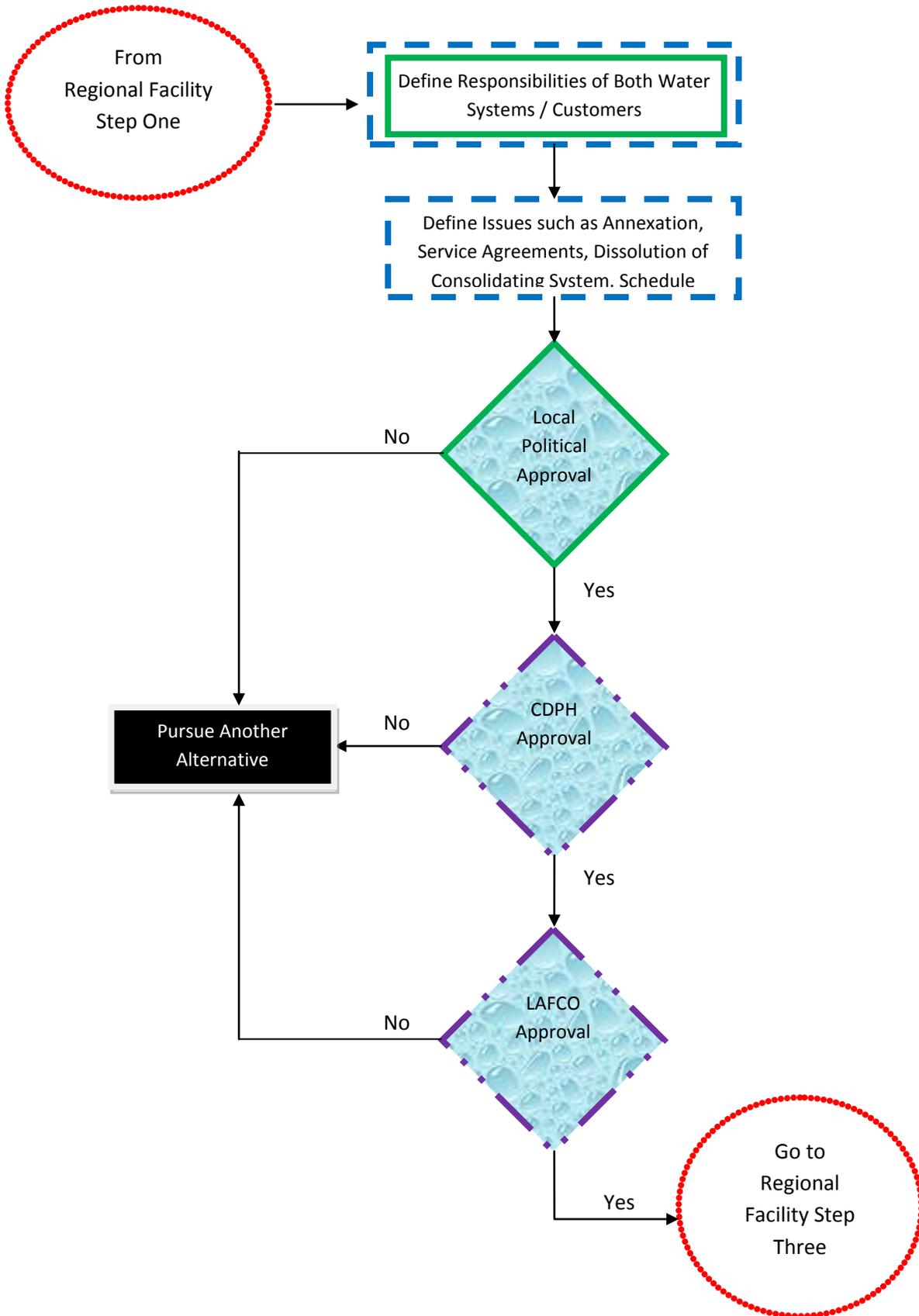
Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step One



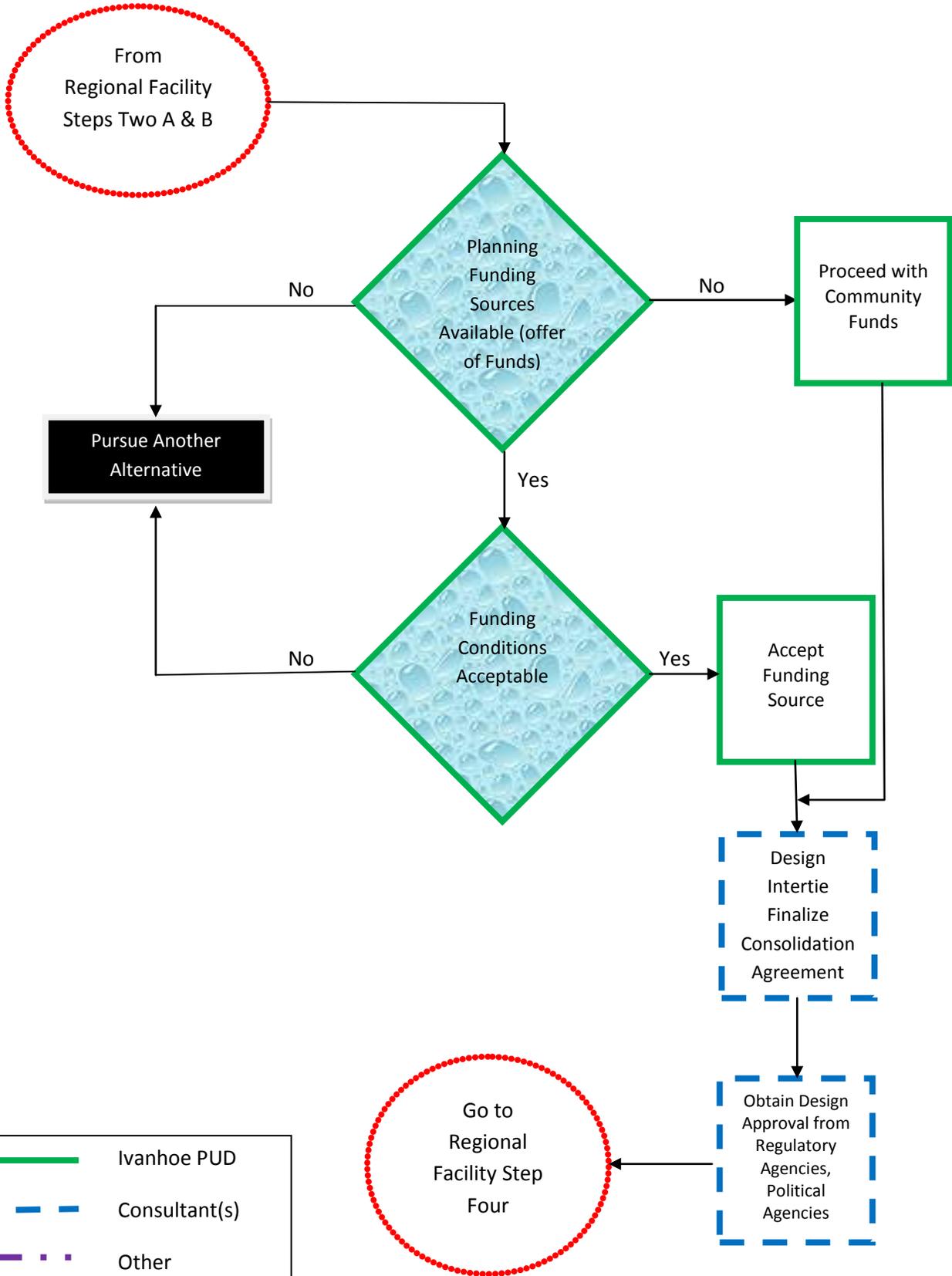
Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Two A
(Technical)



Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Two B
(Political)



Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Three



	Ivanhoe PUD
	Consultant(s)
	Other

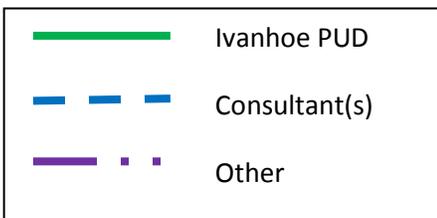
Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Four

From
Regional Facility
Step Three

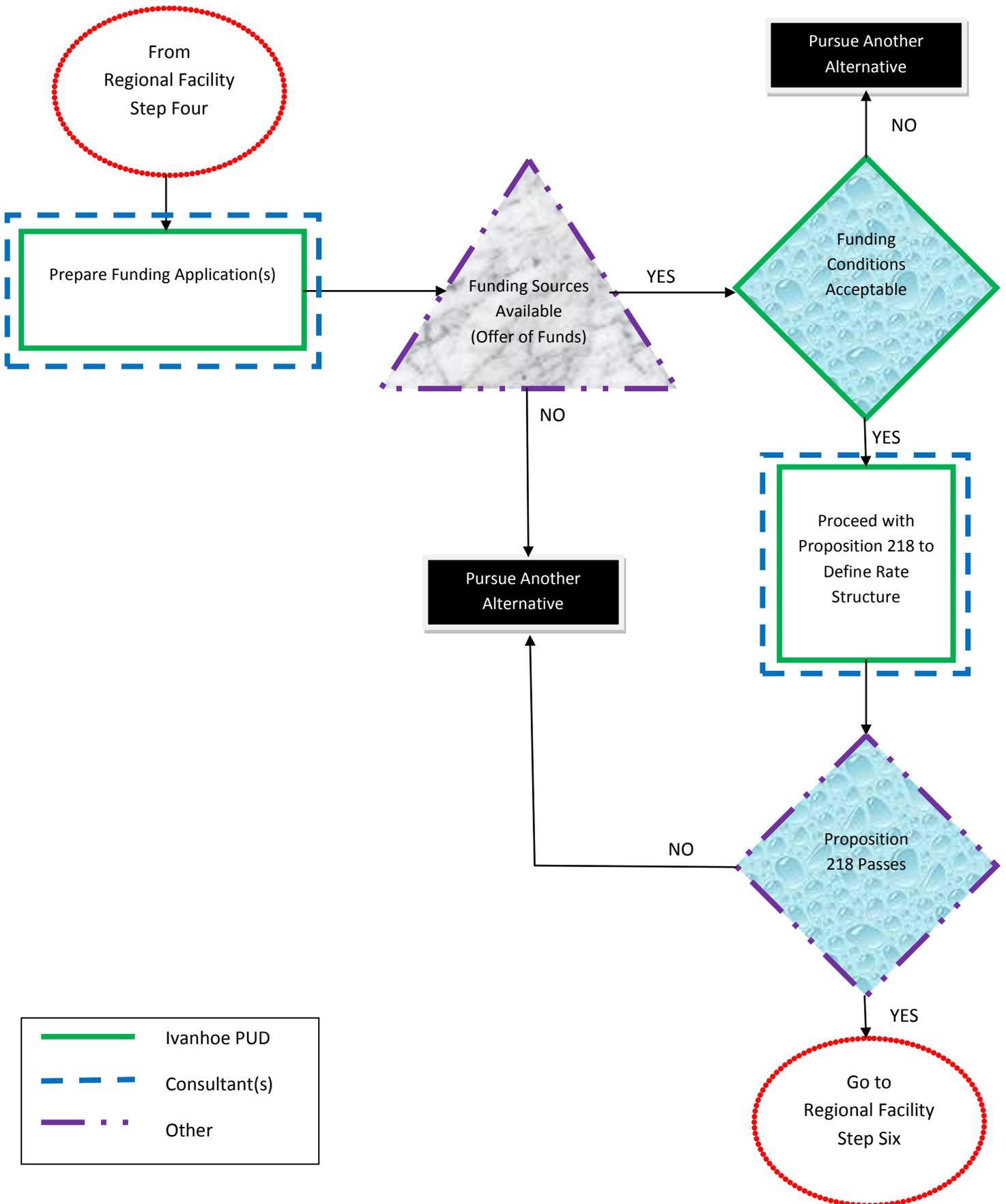
Identify Alternative
to Satisfy Technical
Deficiencies

Location of Facilities
Capital Costs
Operation and Maintenance Costs
Regional Facility Authority
Changes to Local Authority
Property Requirements
Water or Sewer System Charges
Regulatory Compliance Considerations
Environmental Compliance
Considerations

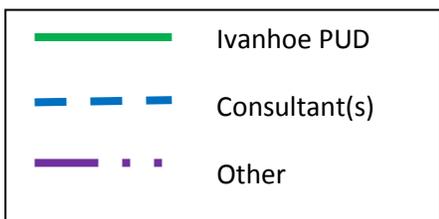
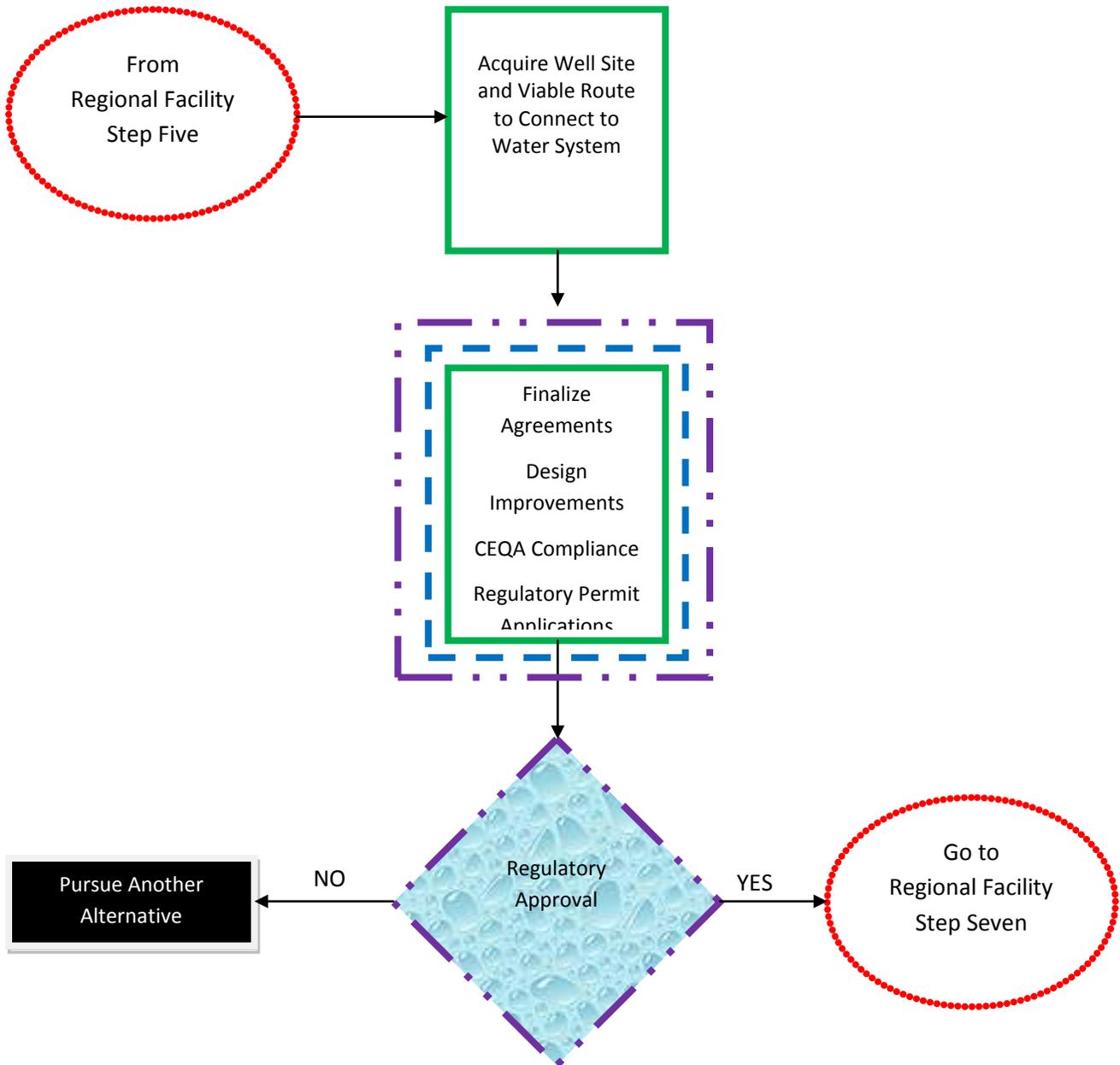
Go to
Regional Facility
Step Five



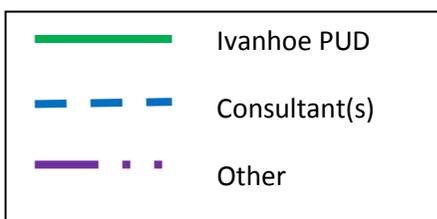
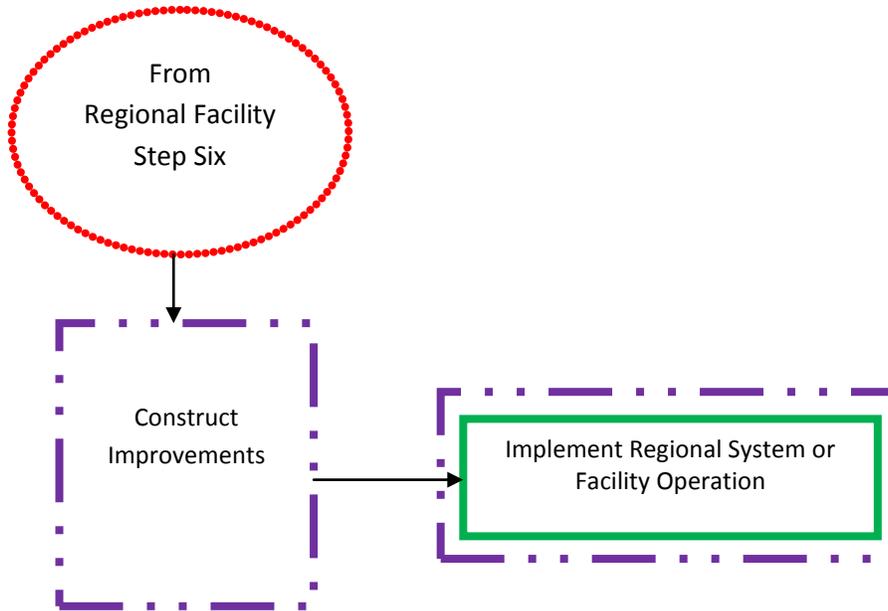
Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Five

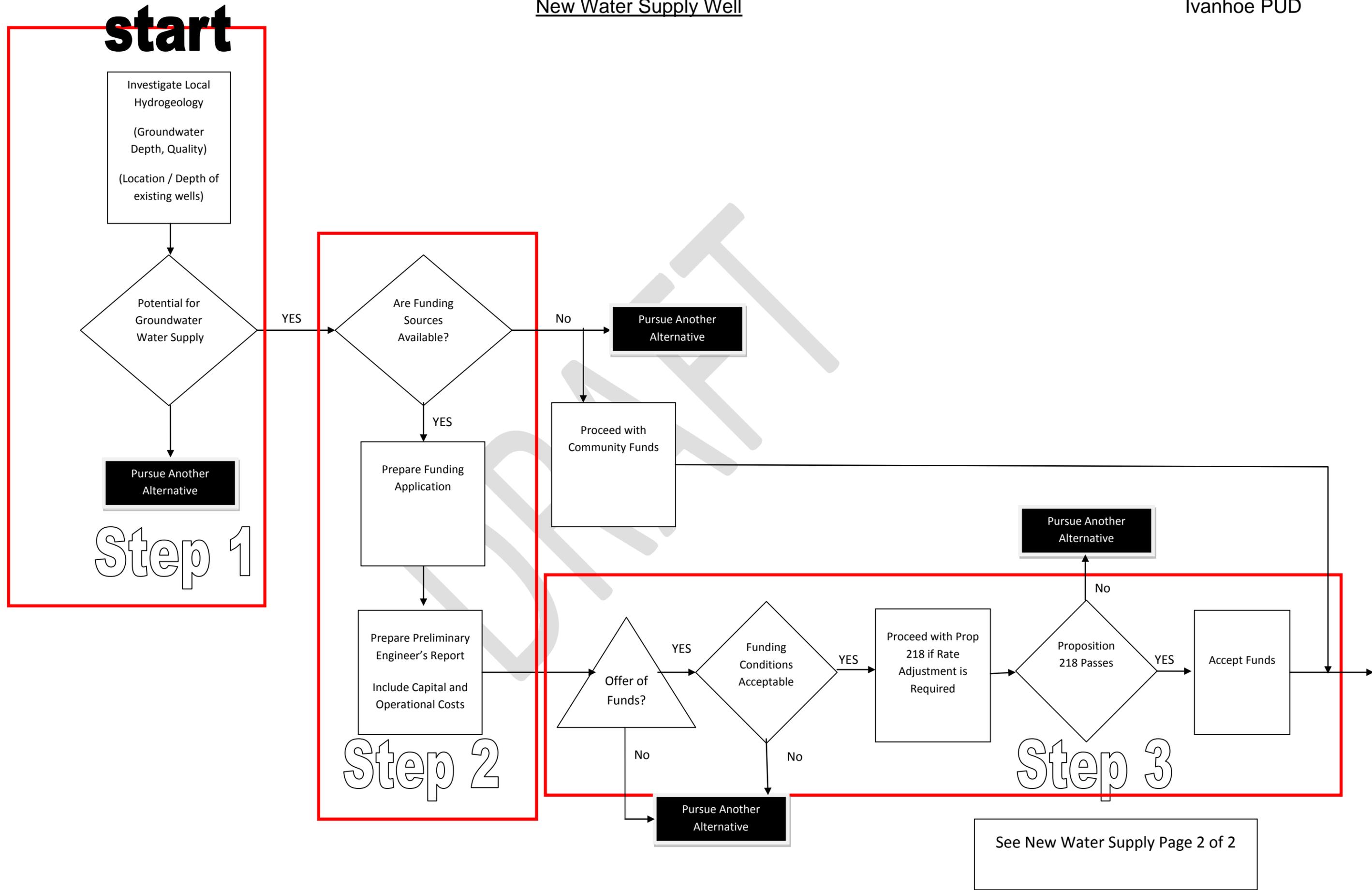


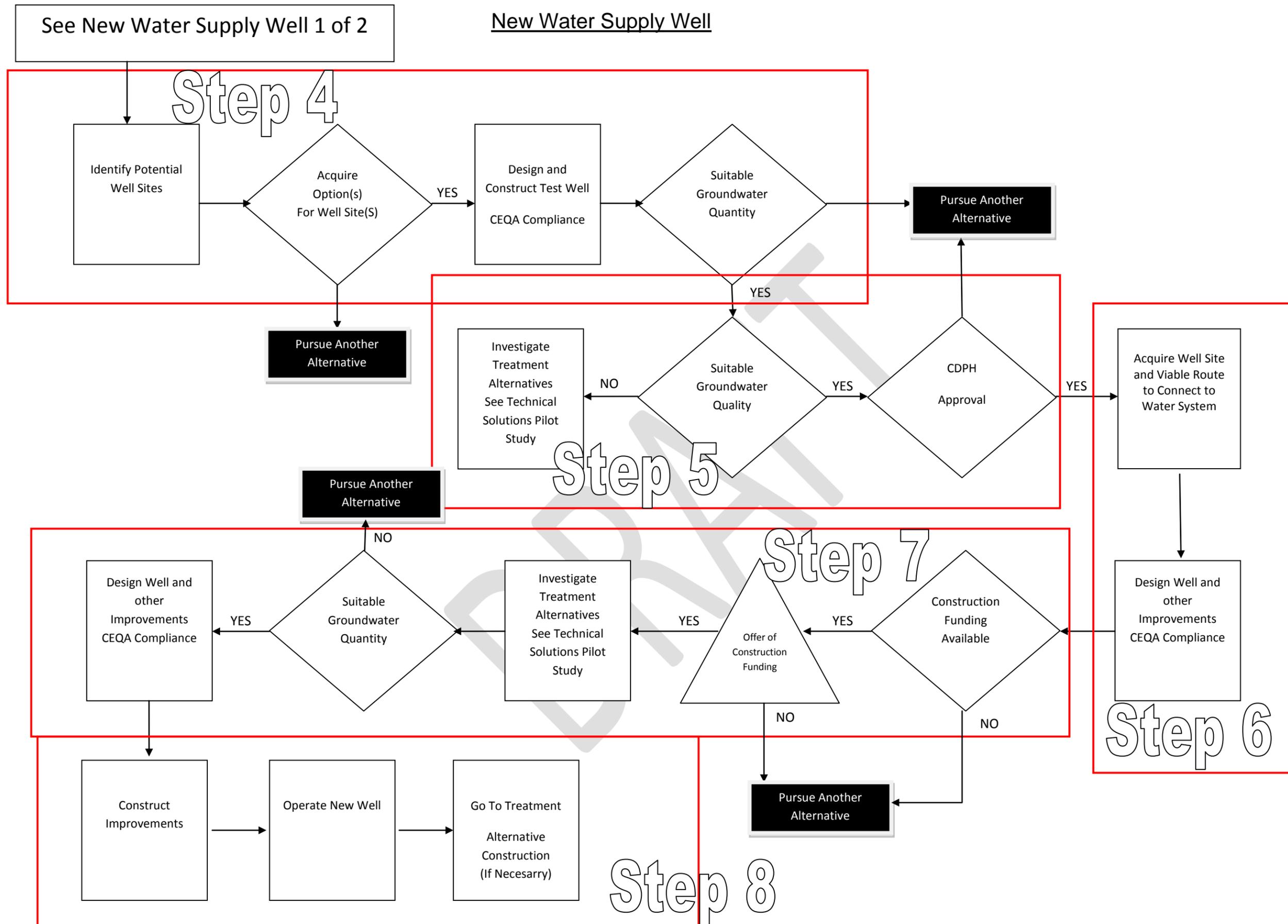
Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Six



Ivanhoe PUD
Regional Facility (Water or Wastewater)
Step Seven

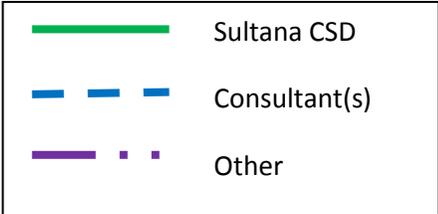
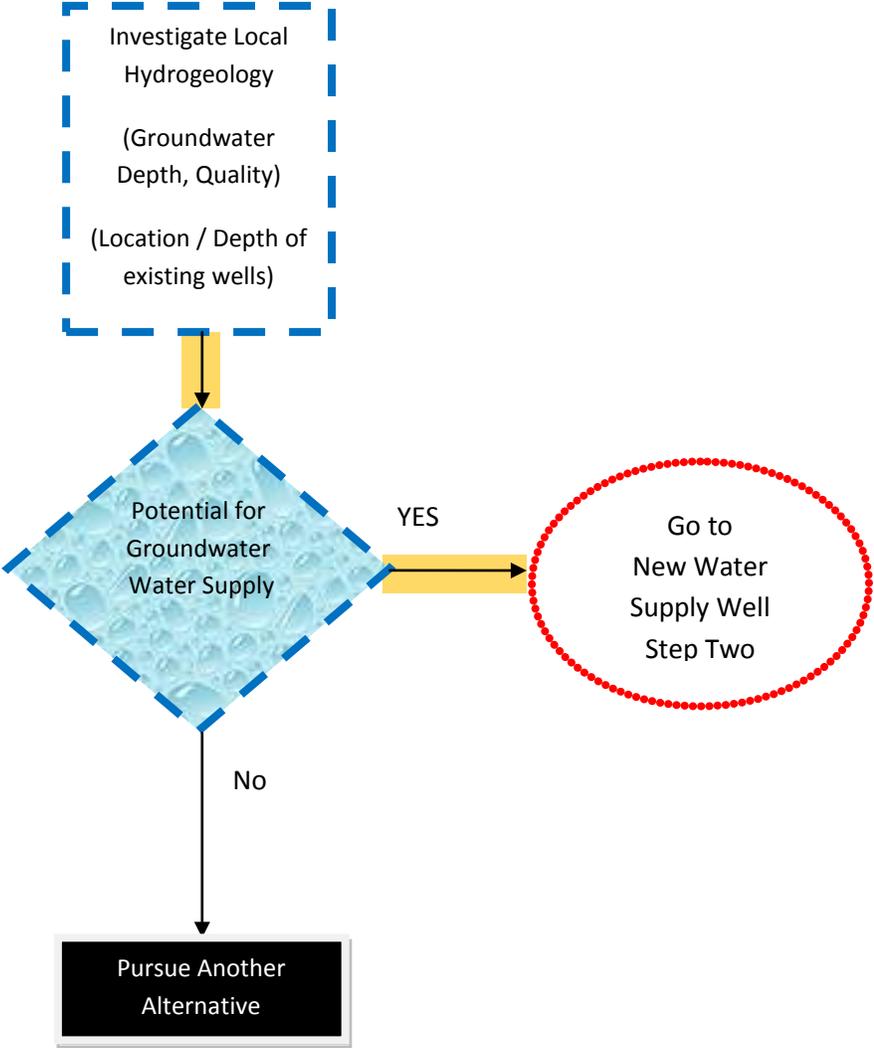




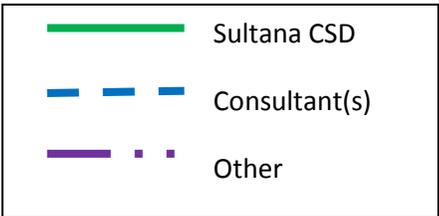
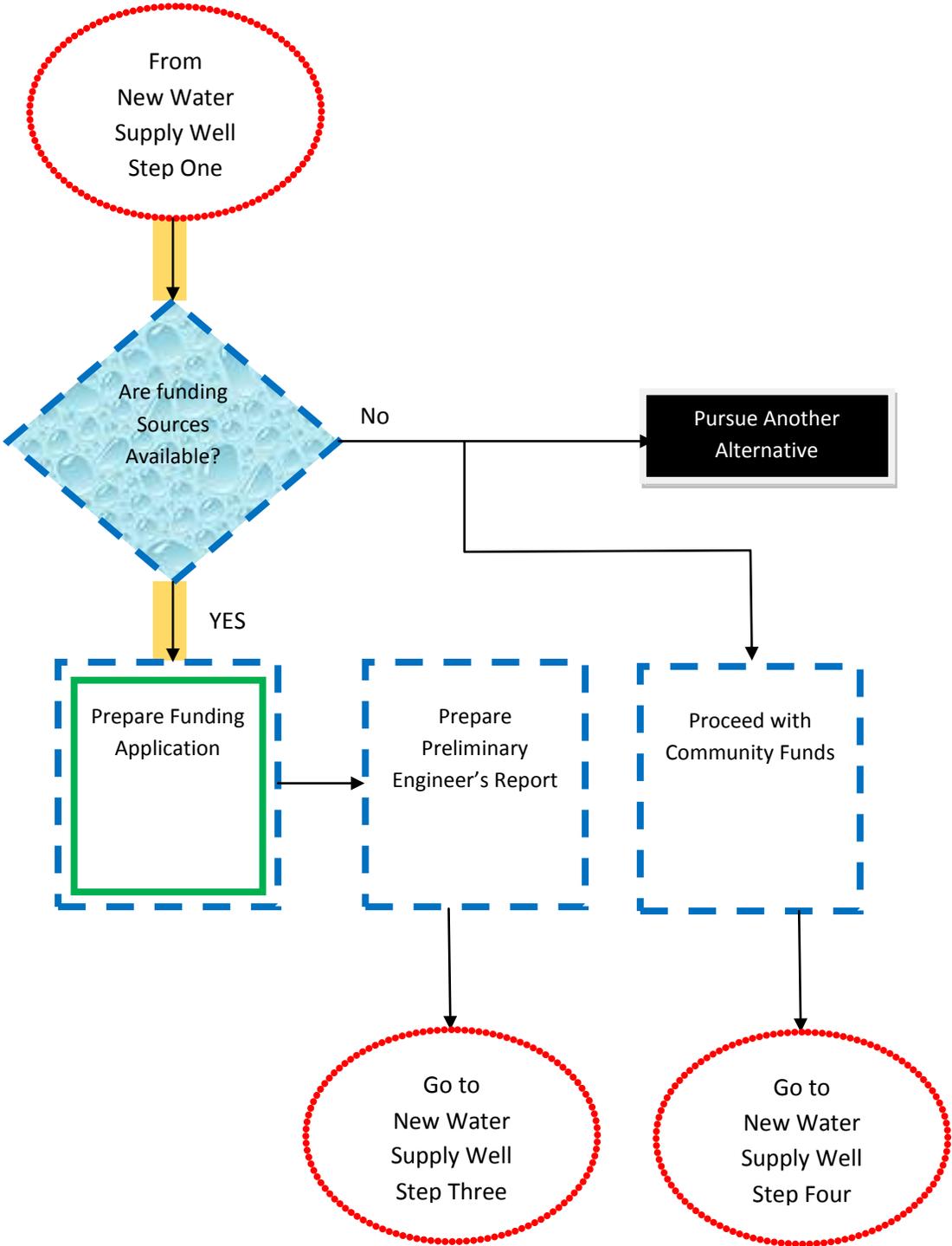


Sultana CSD
New Water Supply Well
Step One

Step One

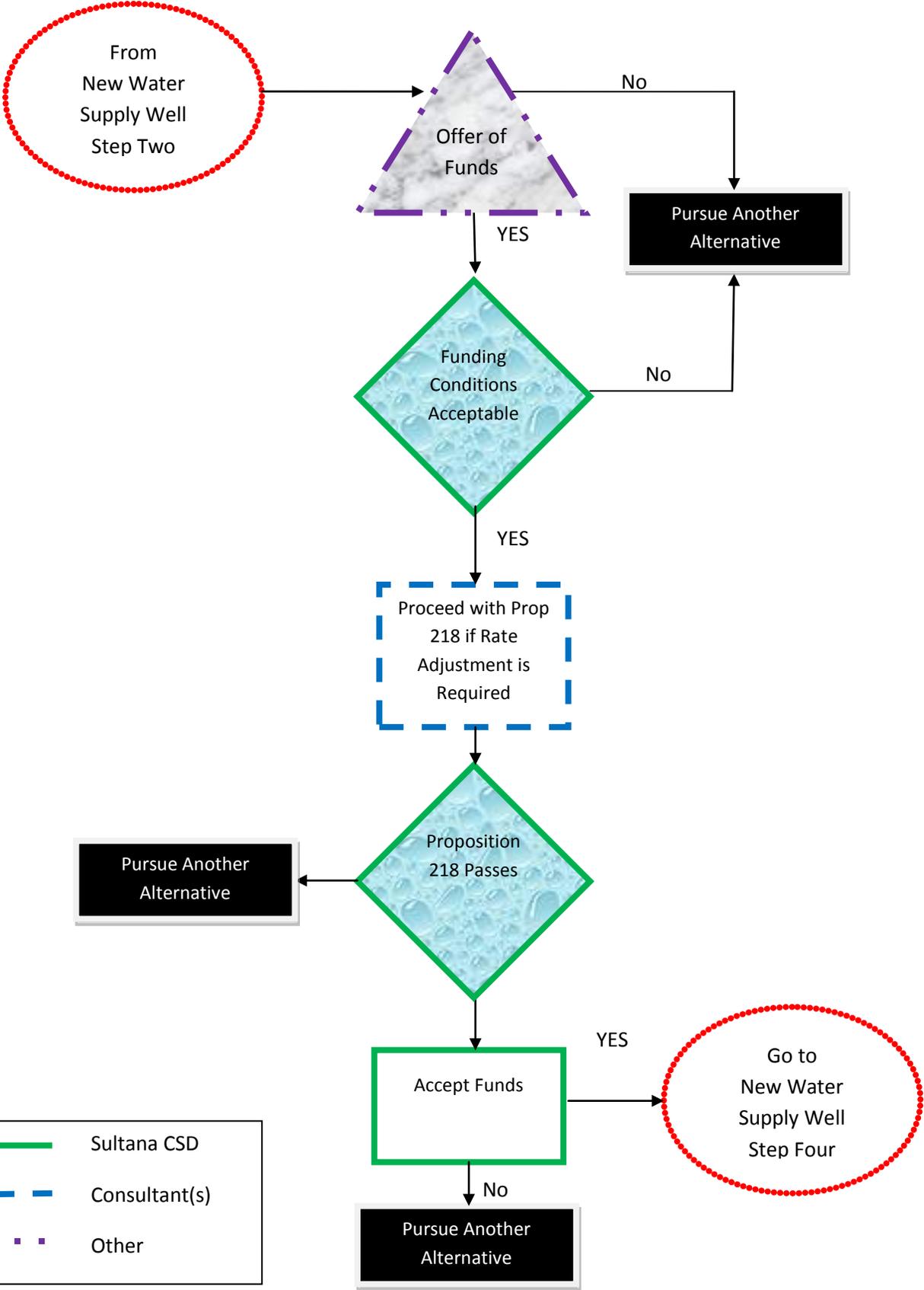


Sultana CSD
New Water Supply Well
Step Two



Sultana CSD New Water Supply Well

Step Three



Sultana CSD
New Water Supply Well
Step Four

From
New Water
Supply Well
Step Three

Identify Potential
Well Sites

Acquire
Option(s)
For Well Site(S)

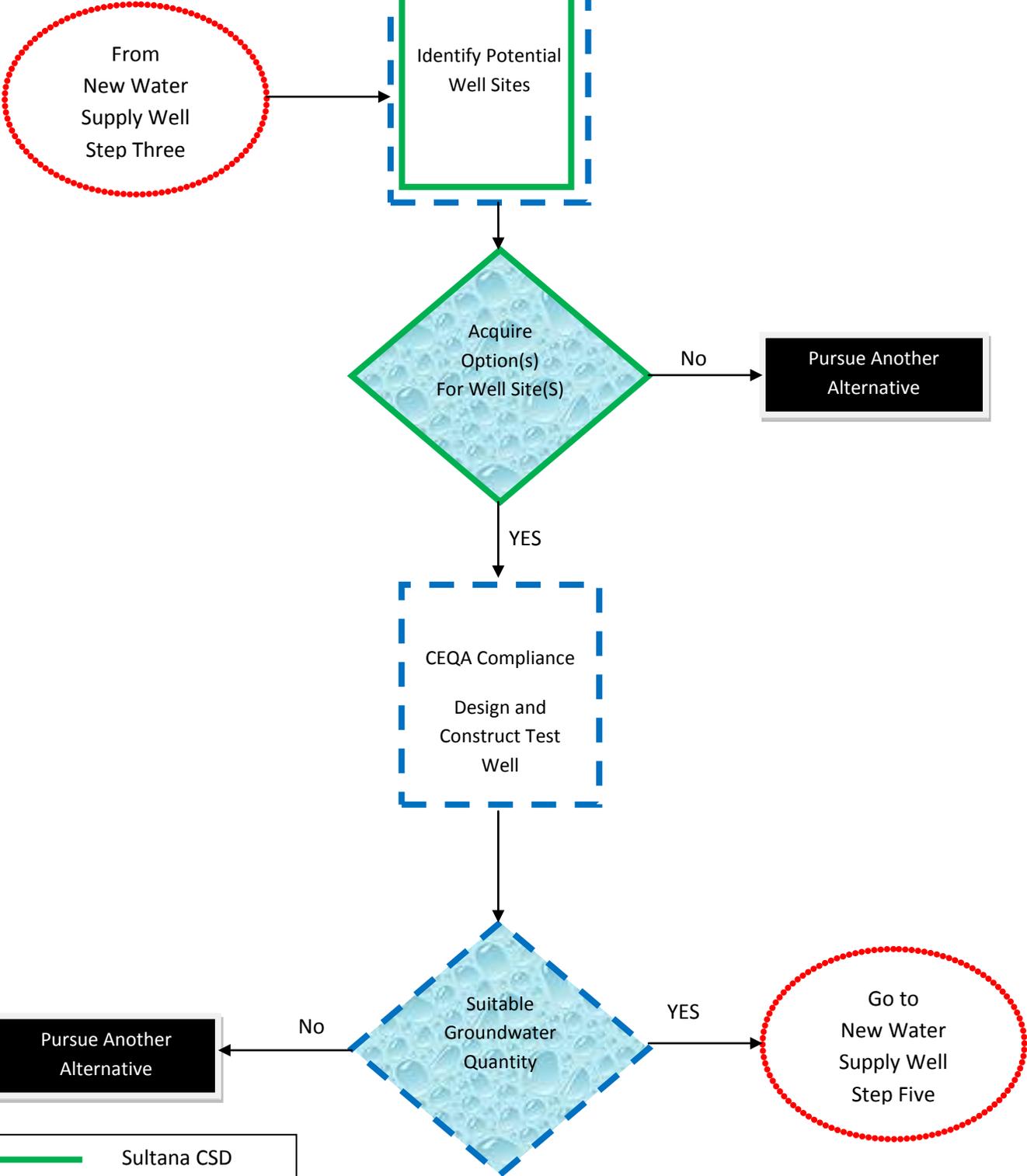
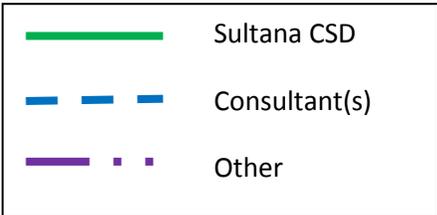
Pursue Another
Alternative

CEQA Compliance
Design and
Construct Test
Well

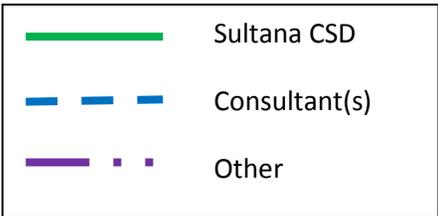
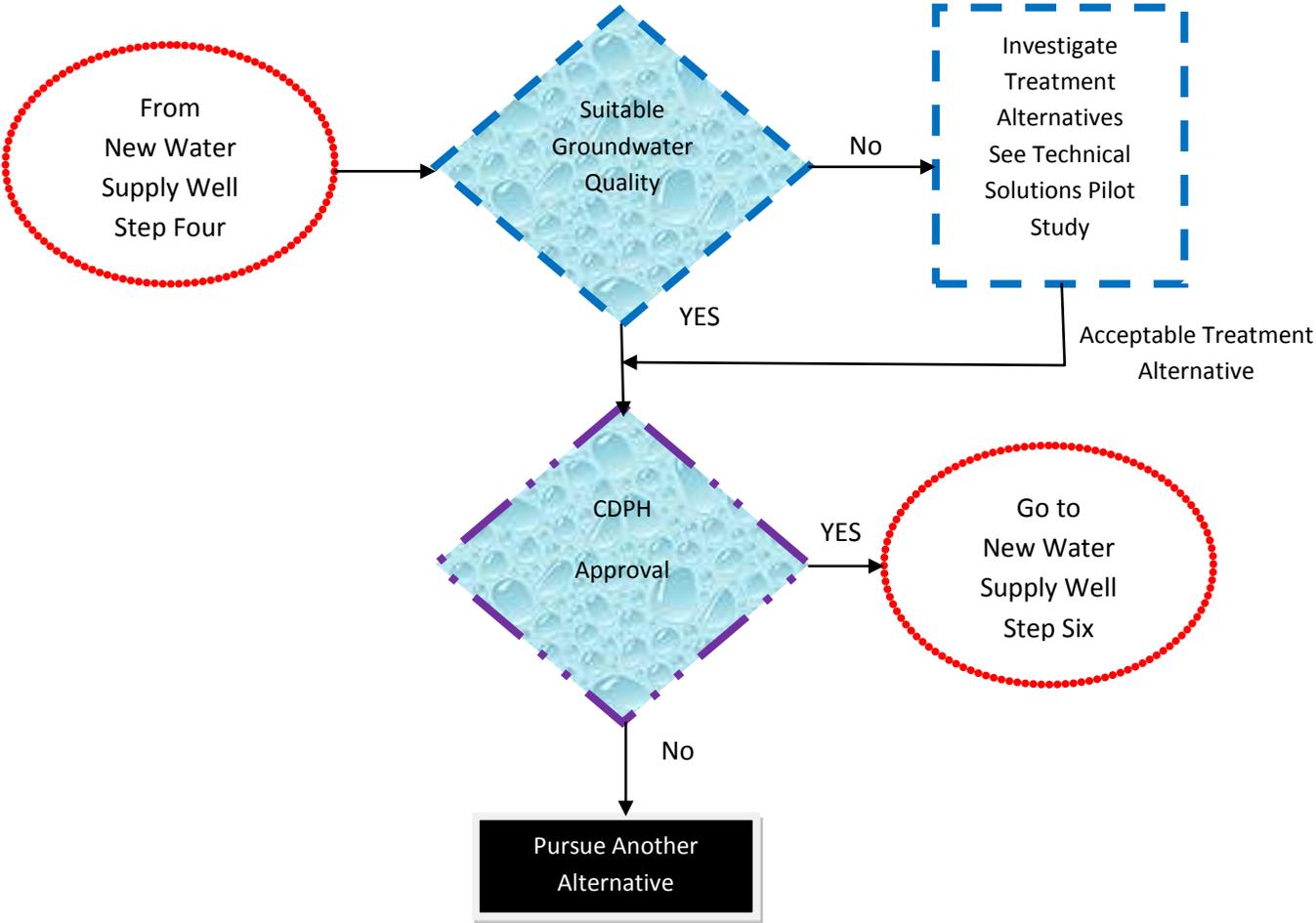
Pursue Another
Alternative

Suitable
Groundwater
Quantity

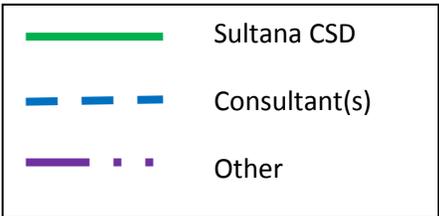
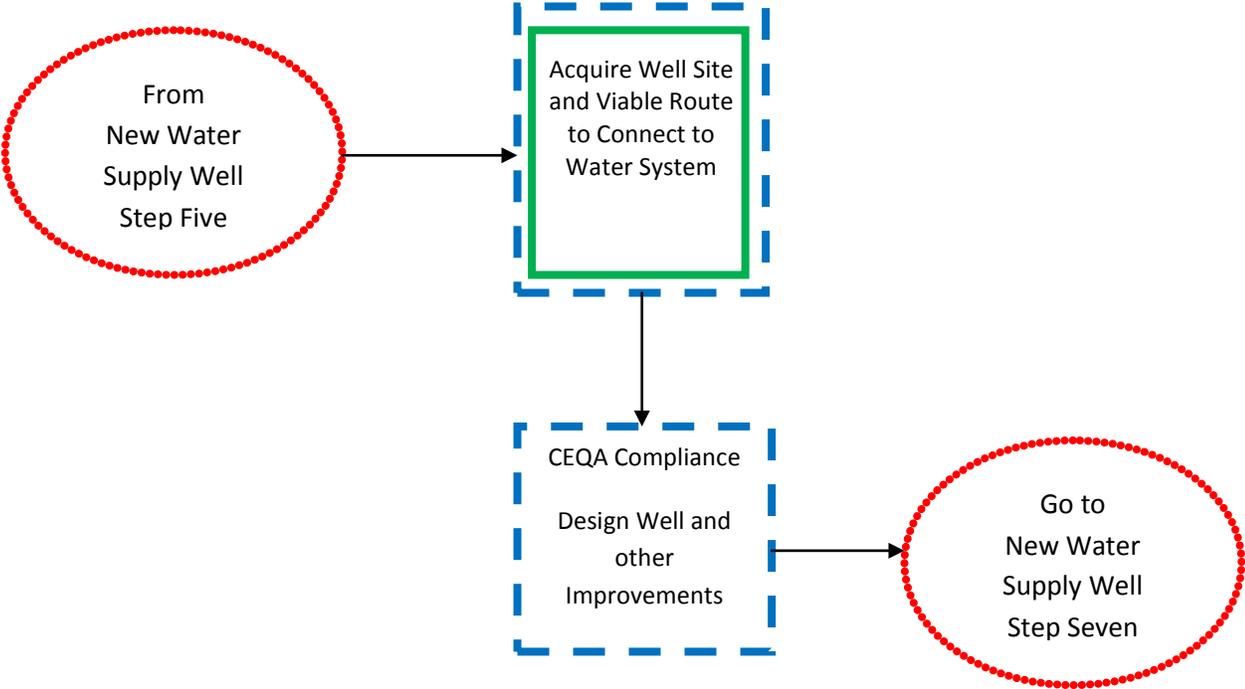
Go to
New Water
Supply Well
Step Five



Sultana CSD
New Water Supply Well
Step Five

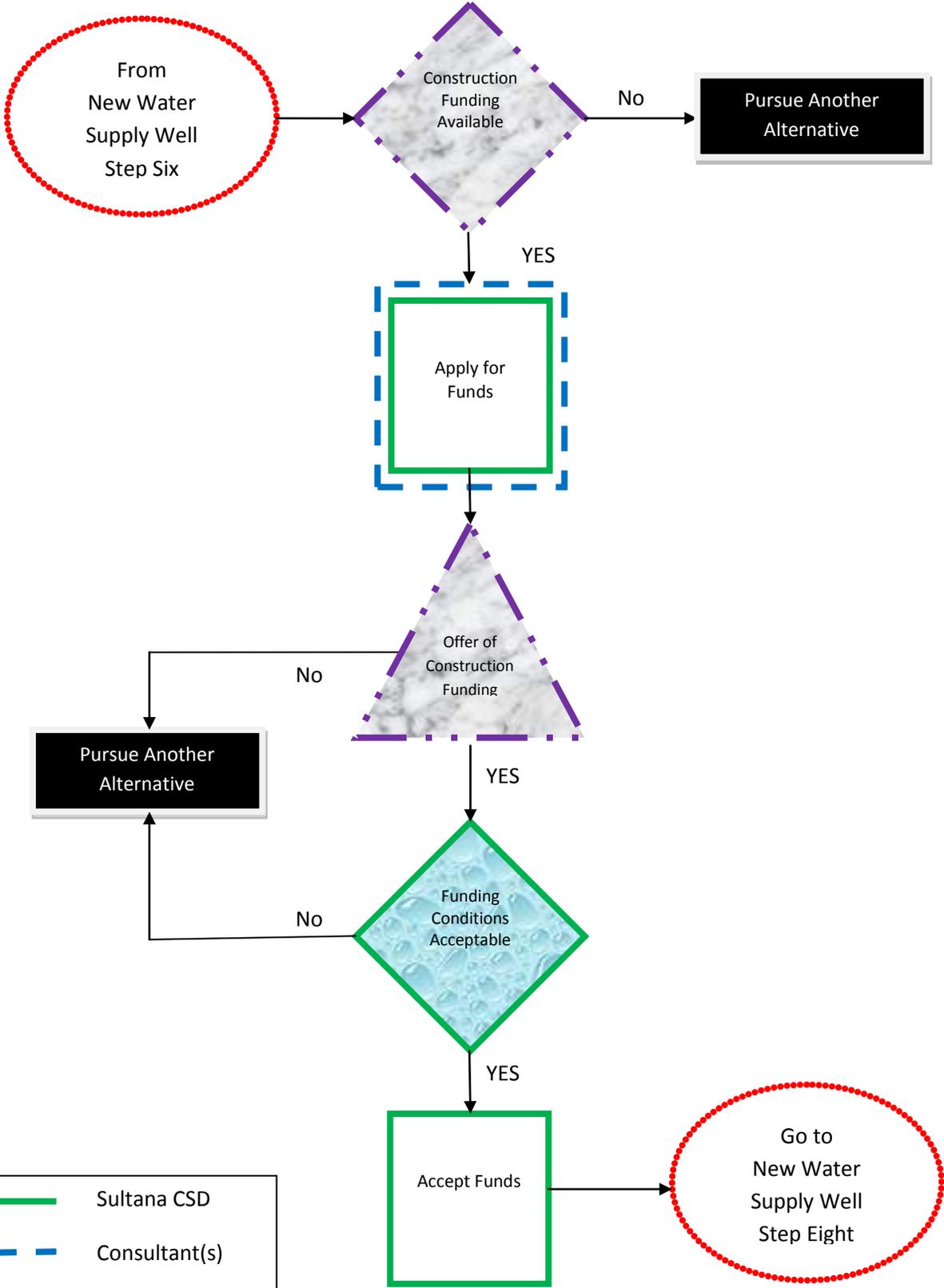


Sultana CSD
New Water Supply Well
Step Six



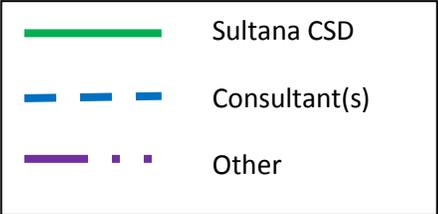
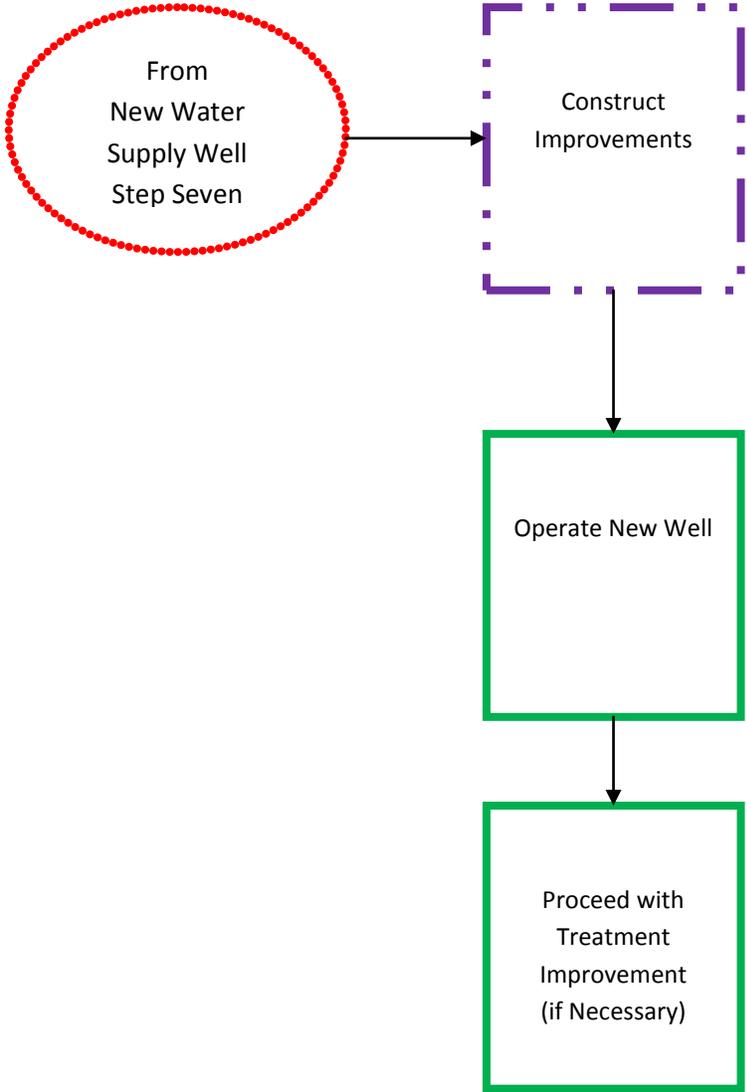
Sultana CSD New Water Supply Well Step Seven

Offer of Construction Funding



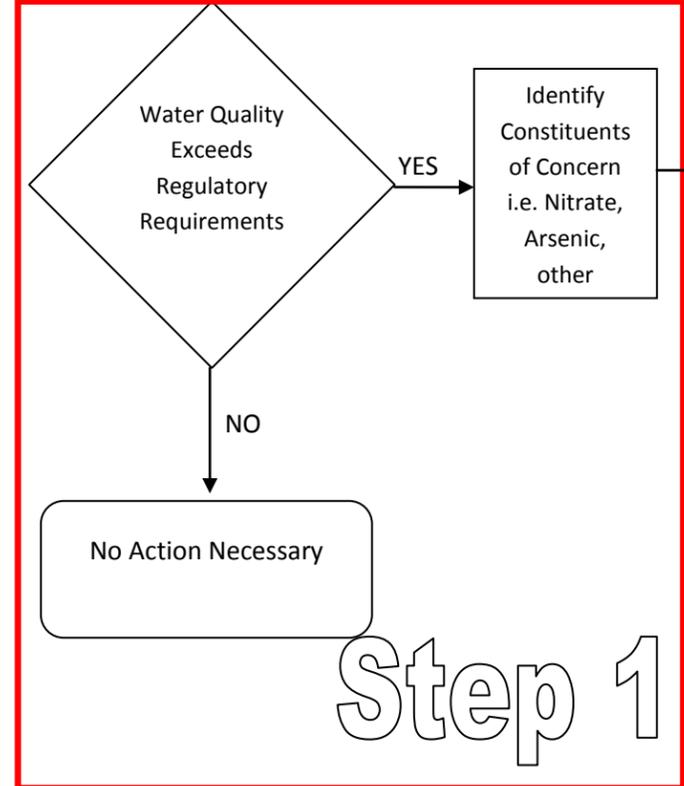
	Sultana CSD
	Consultant(s)
	Other

Sultana CSD
New Water Supply Well
Step Eight



Water Treatment Facility
On an Existing Water Supply Well

start

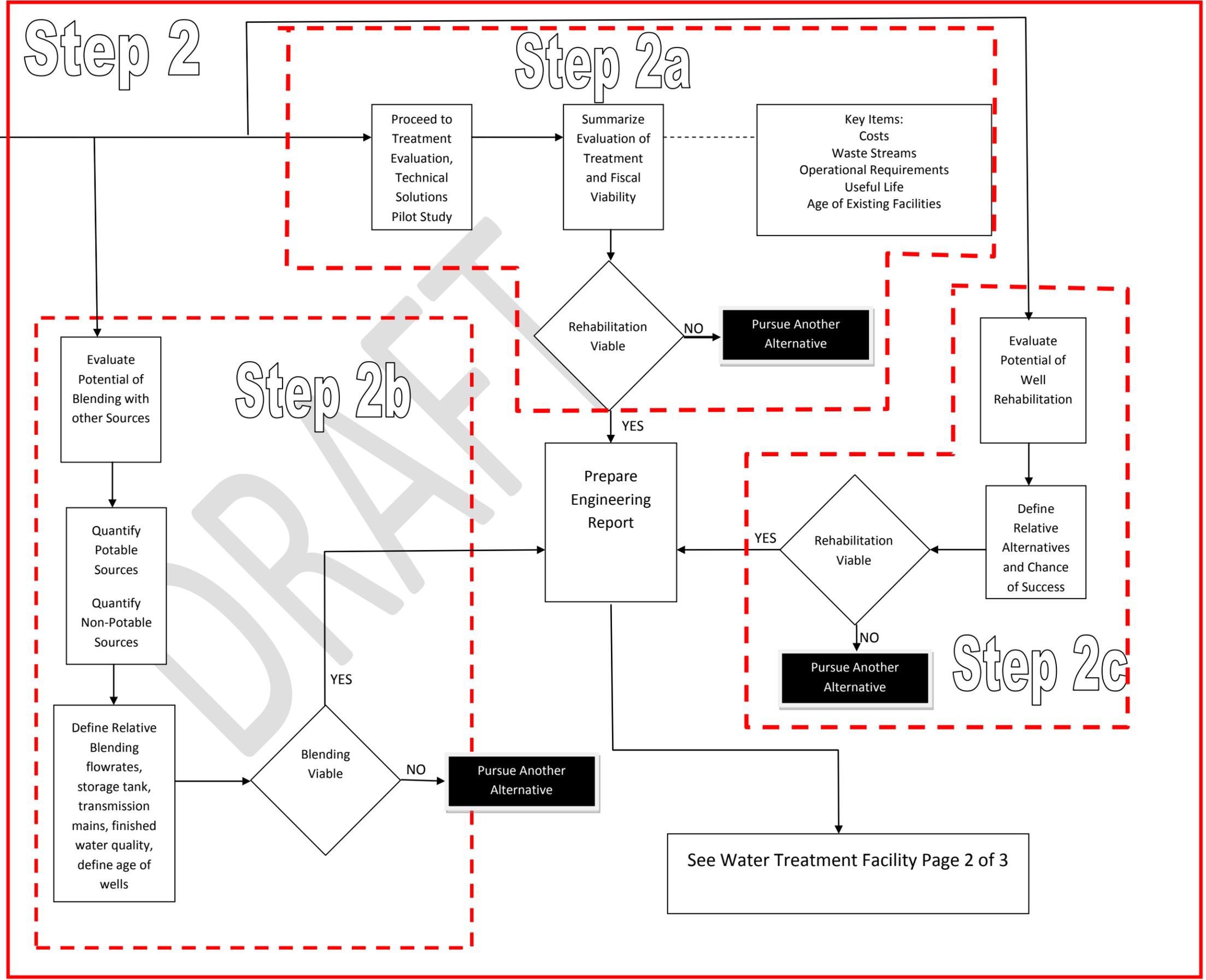


Step 2

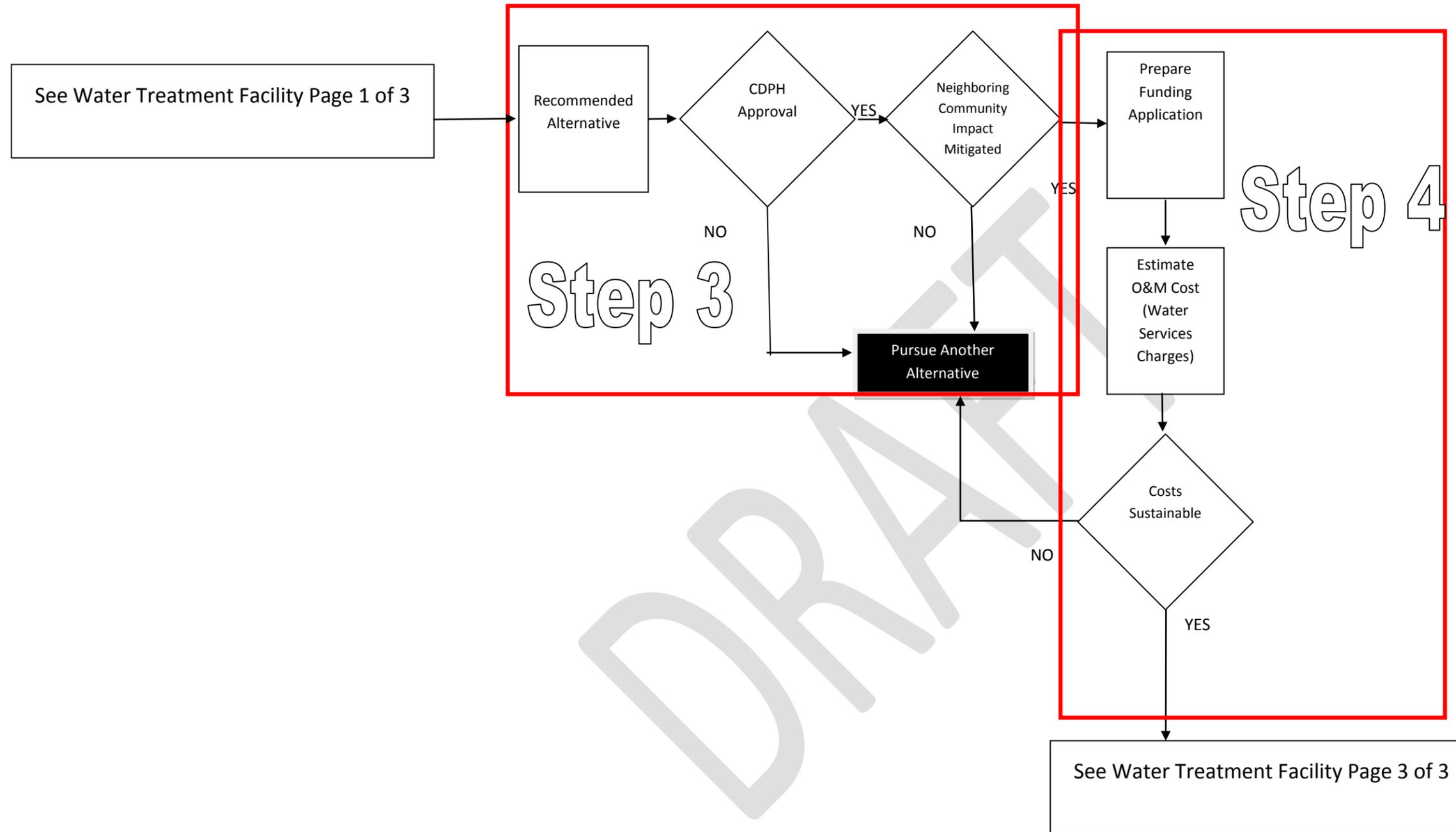
Step 2a

Step 2b

Step 2c



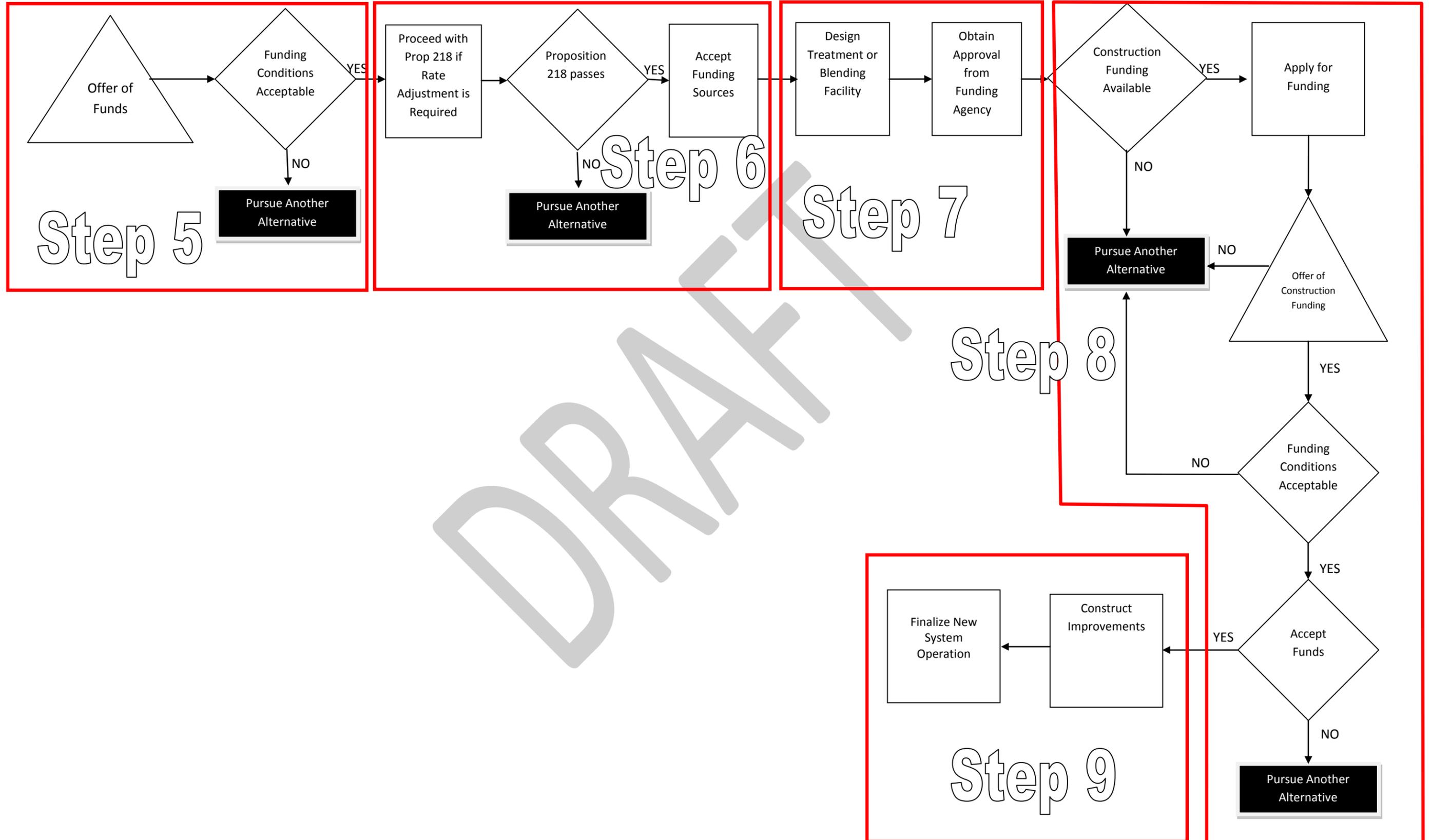
Water Treatment Facility
On an Existing Water Supply Well



See Water Treatment Facility Page 2 of 3

Water Treatment Facility On an Existing Water Supply Well

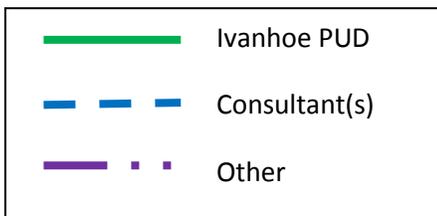
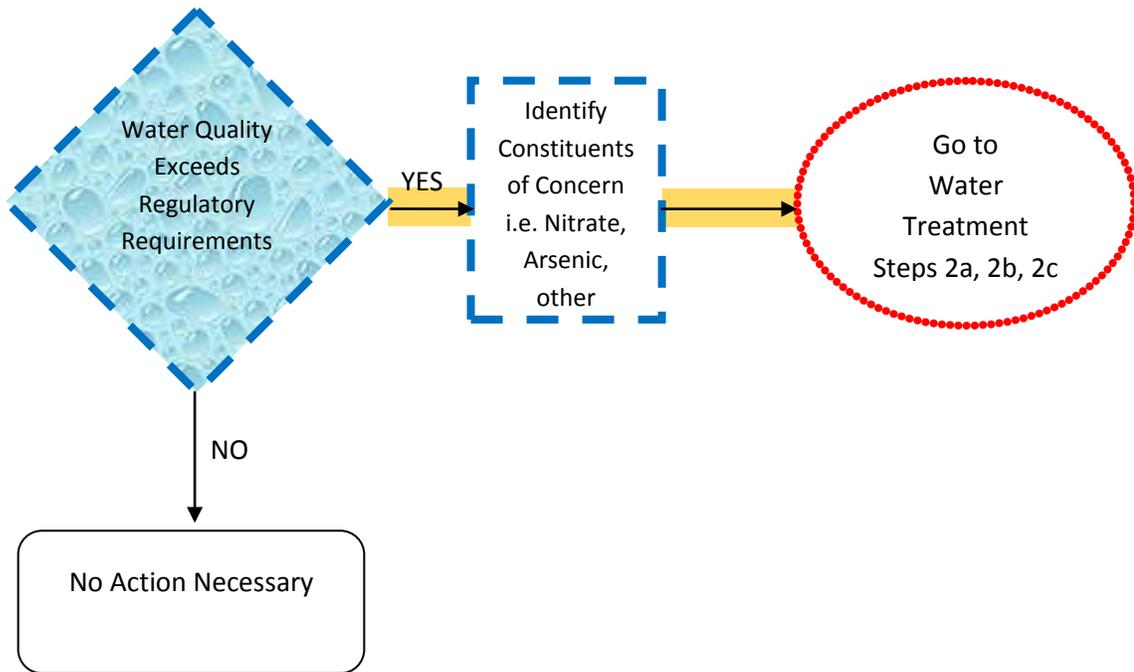
Ivanhoe PUD



DRAFT

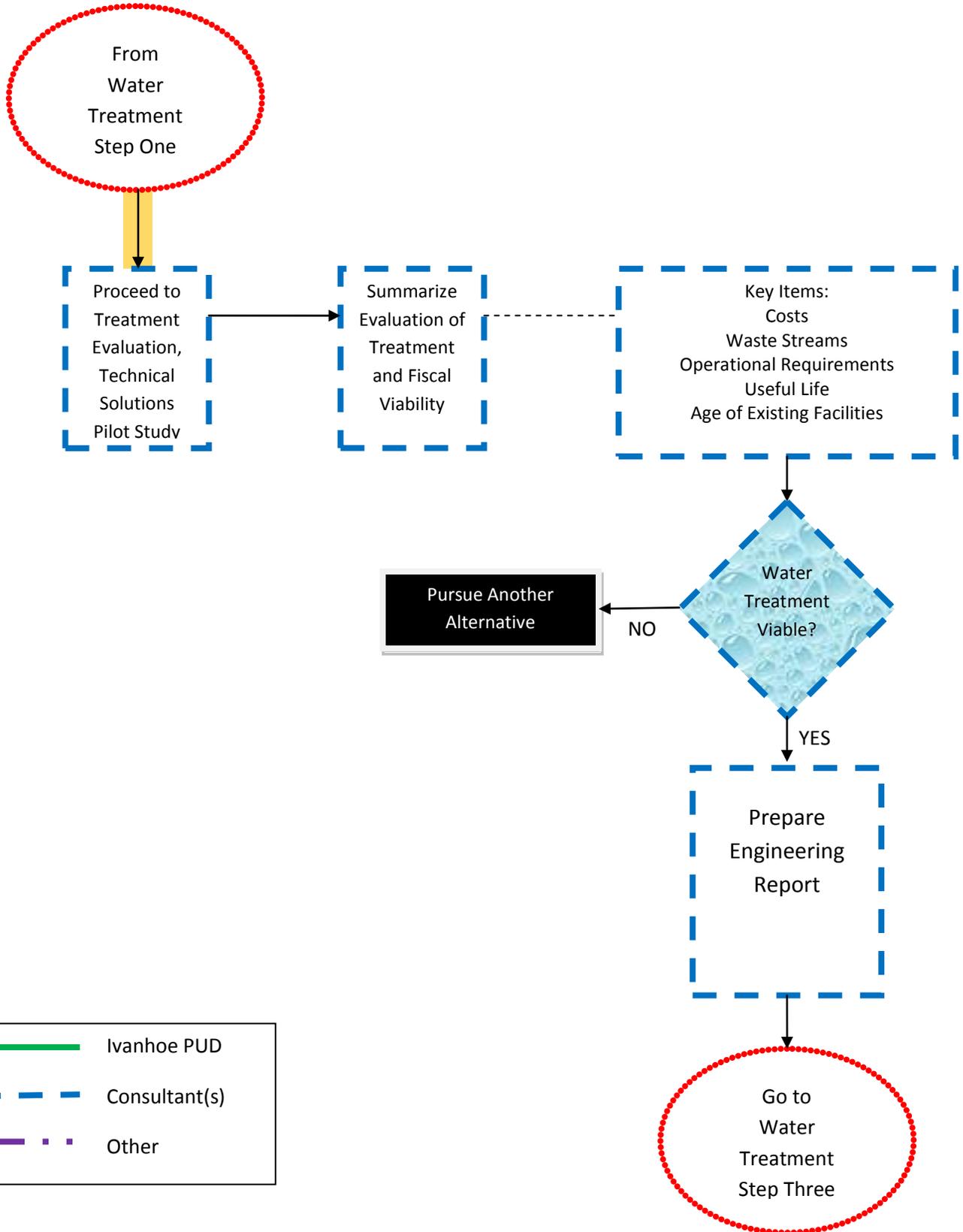
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step One



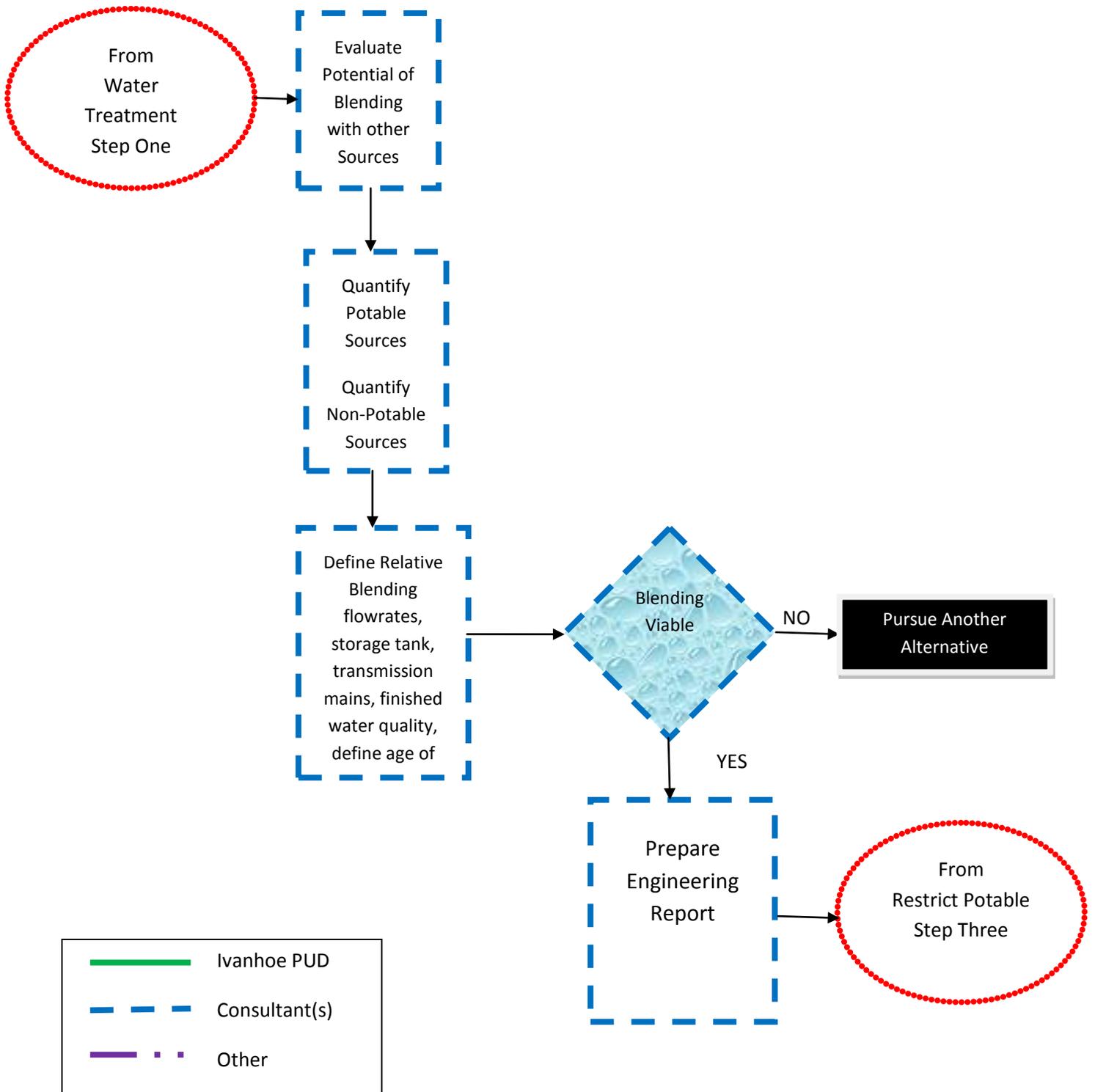
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 2a



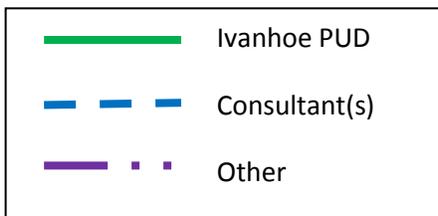
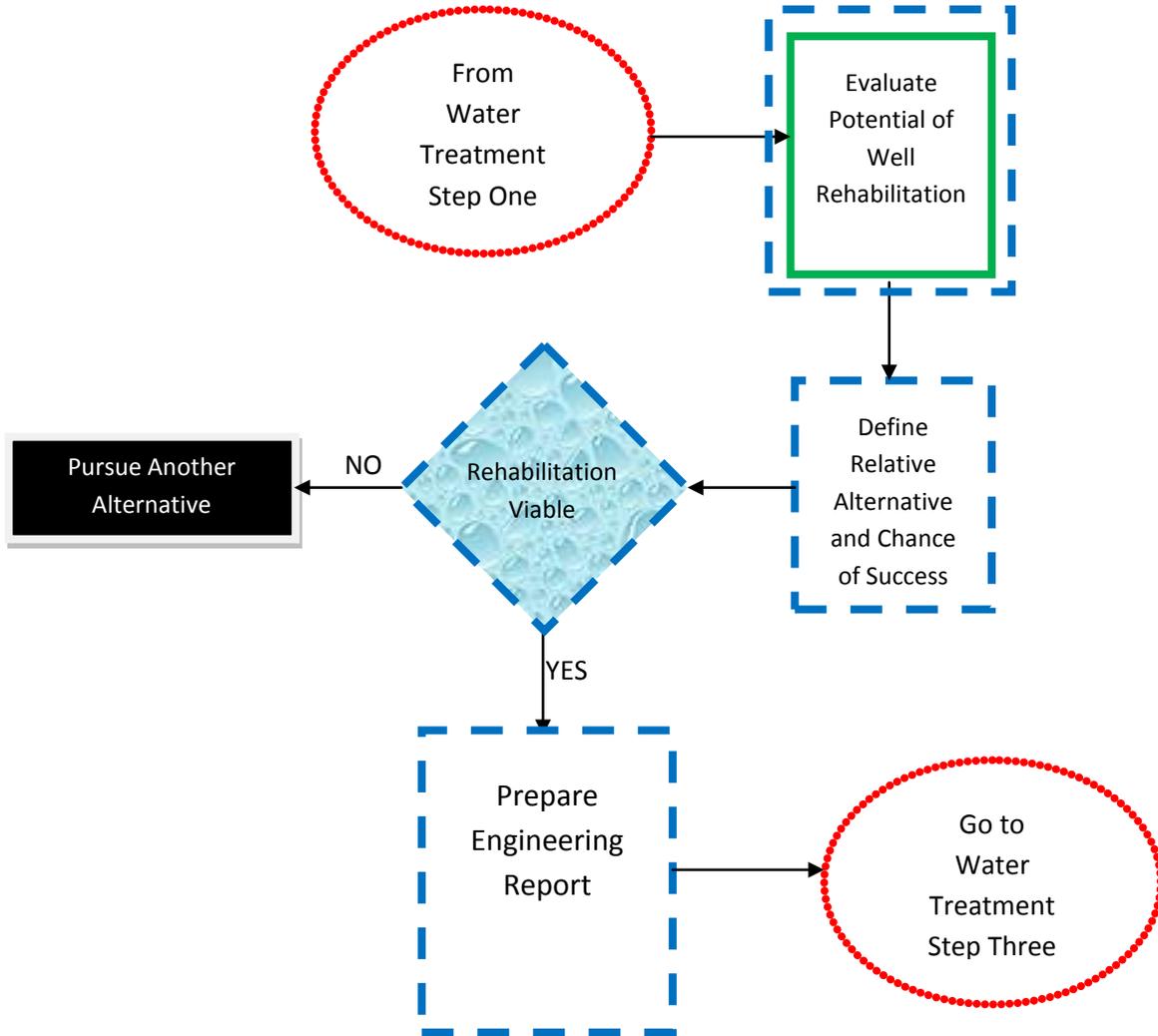
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 2b



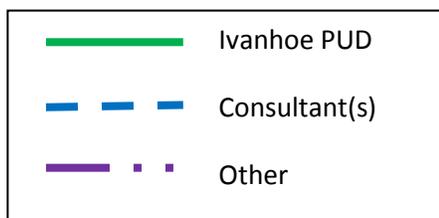
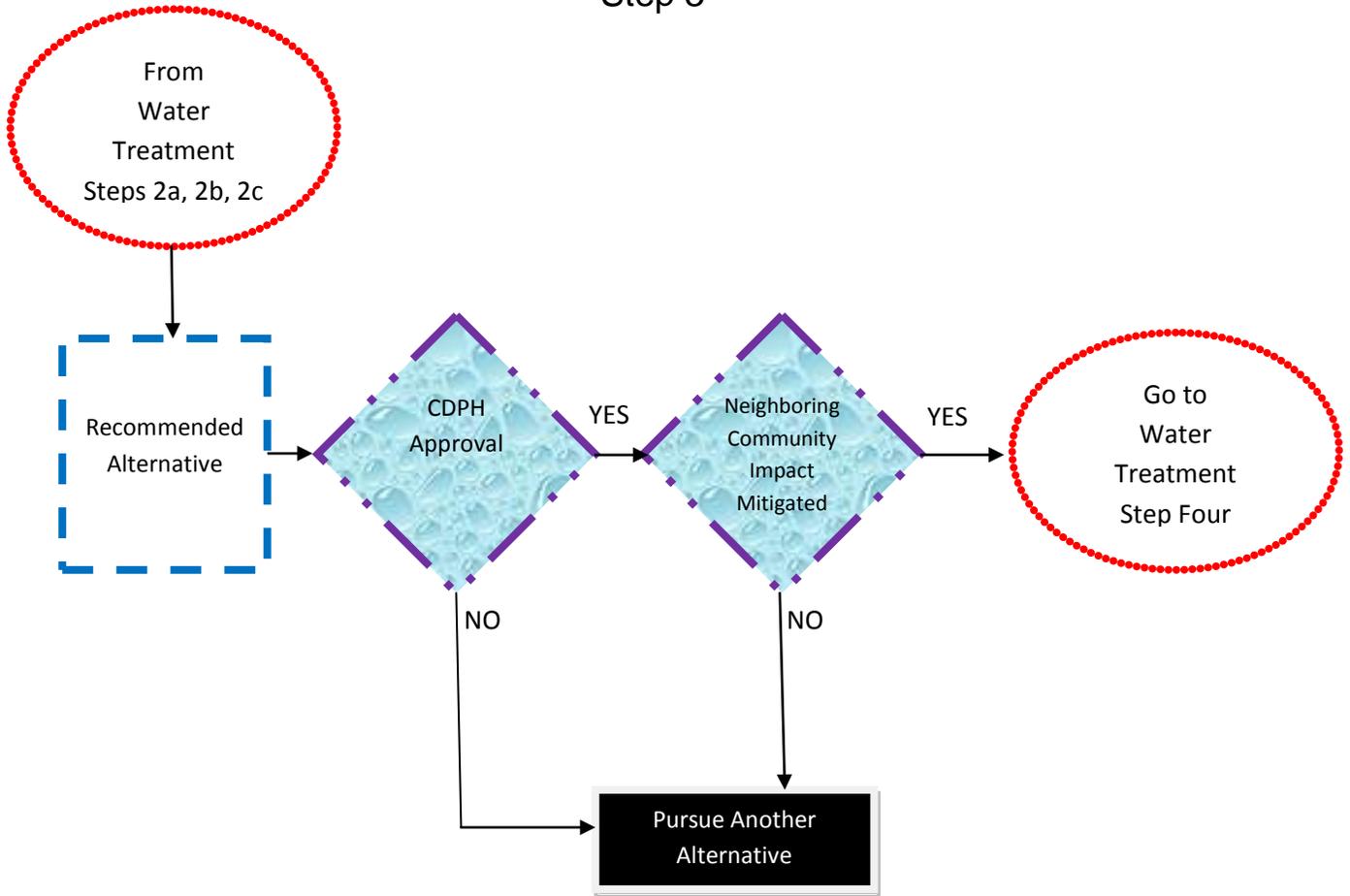
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 2c



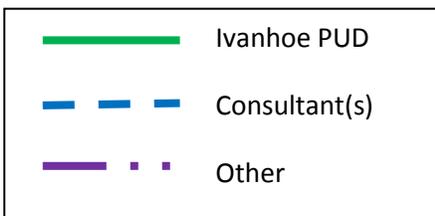
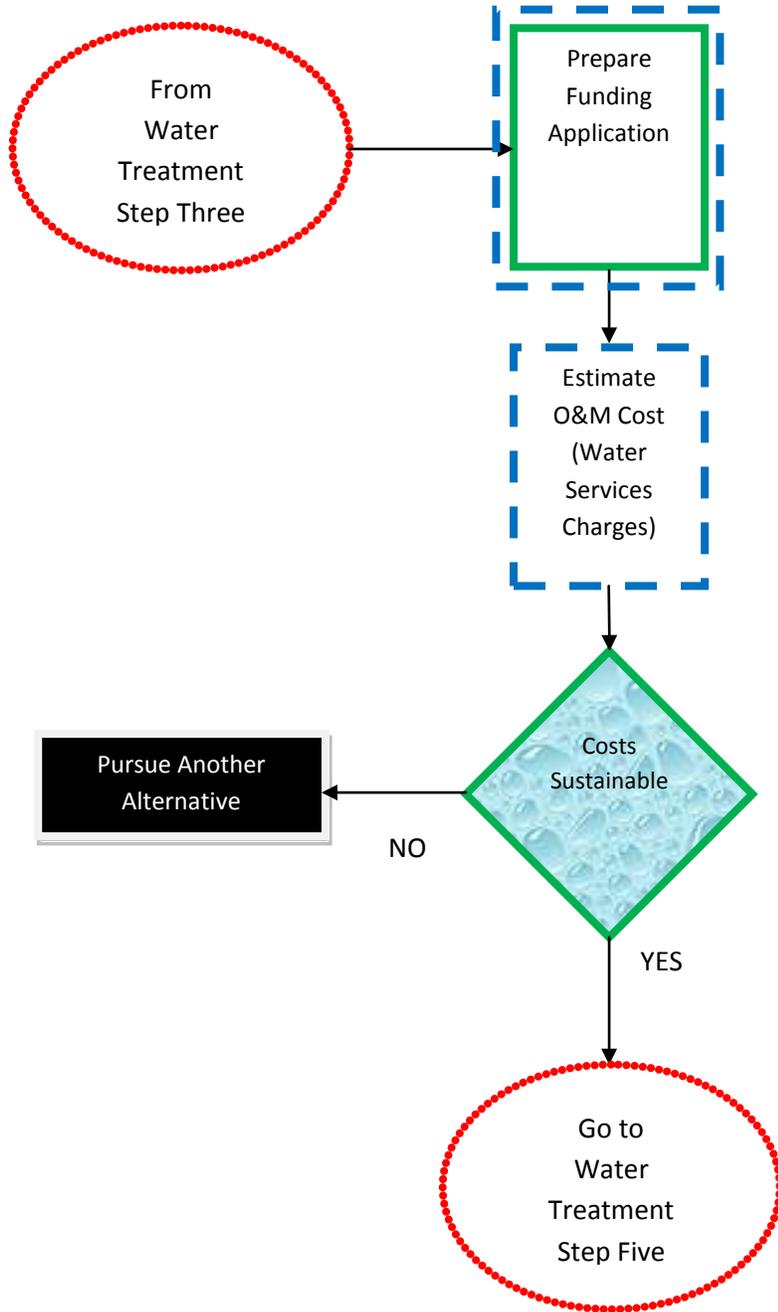
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 3



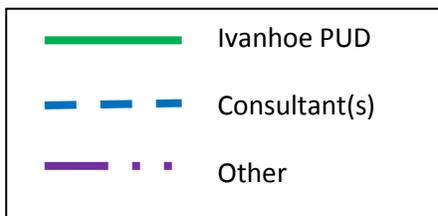
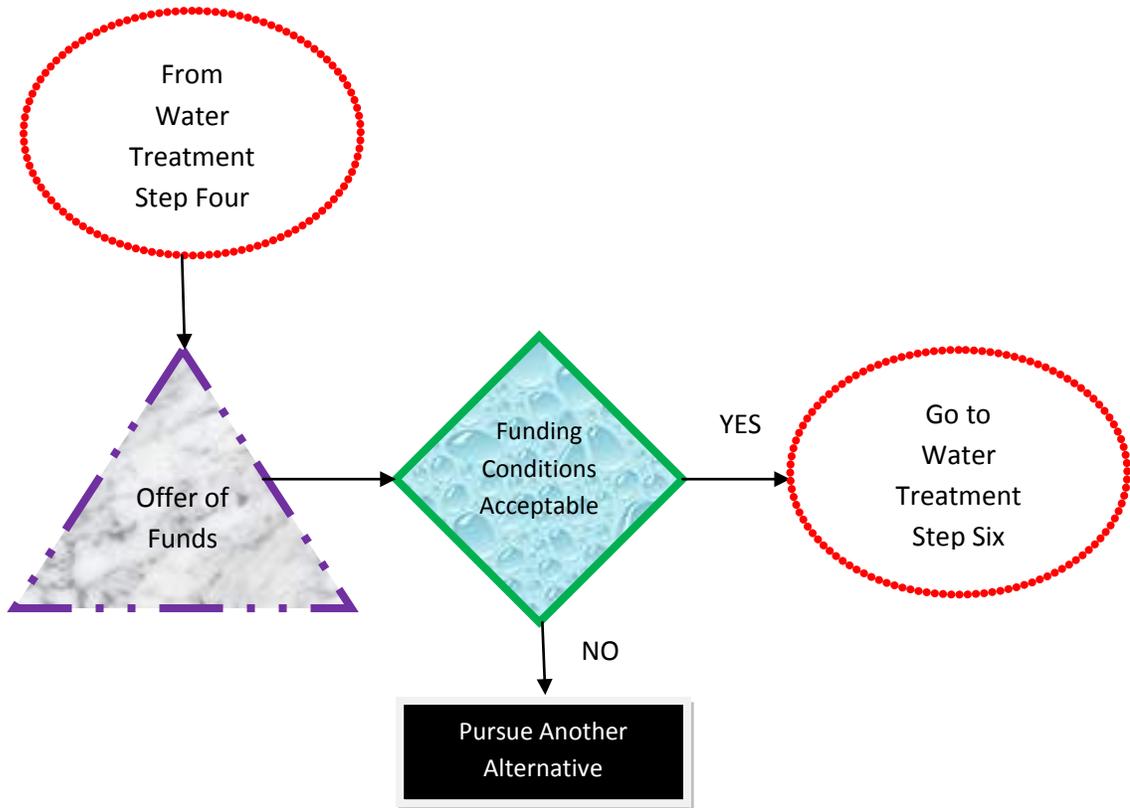
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 4



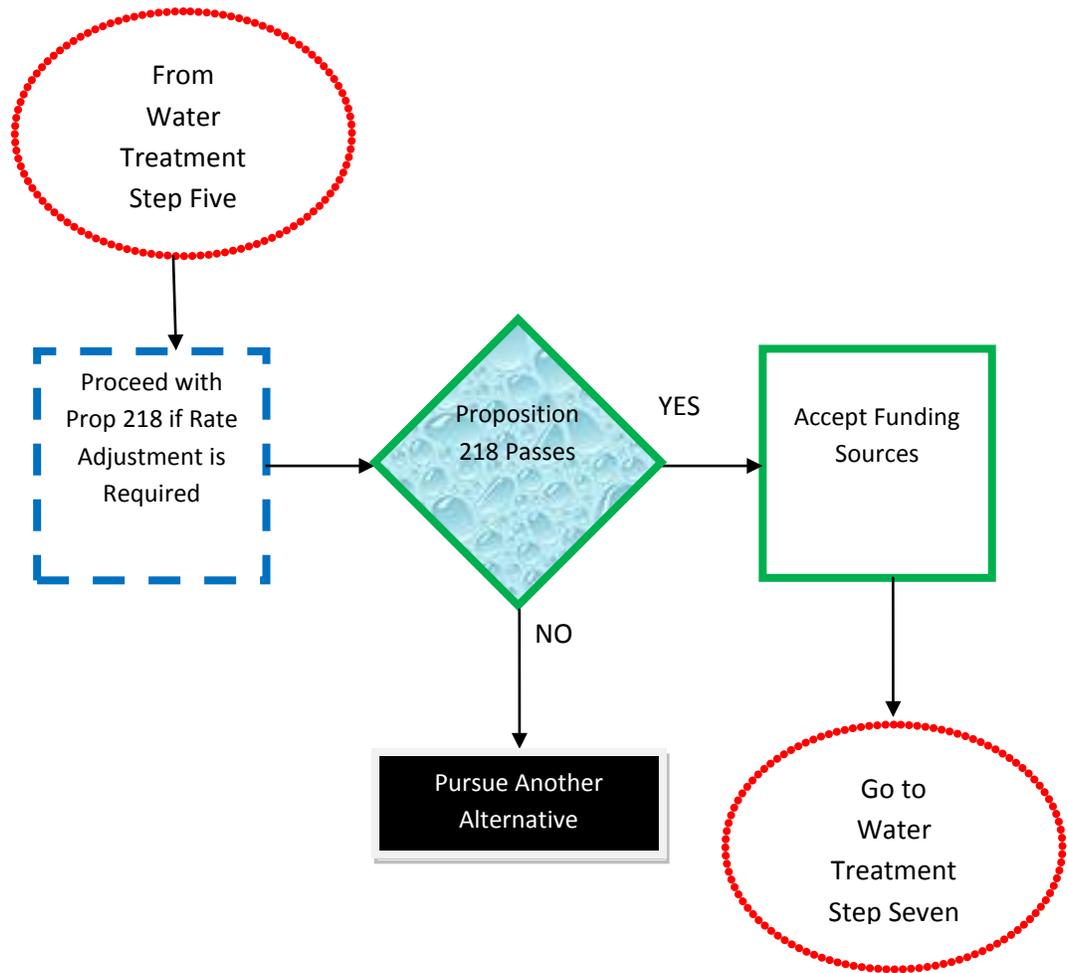
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 5



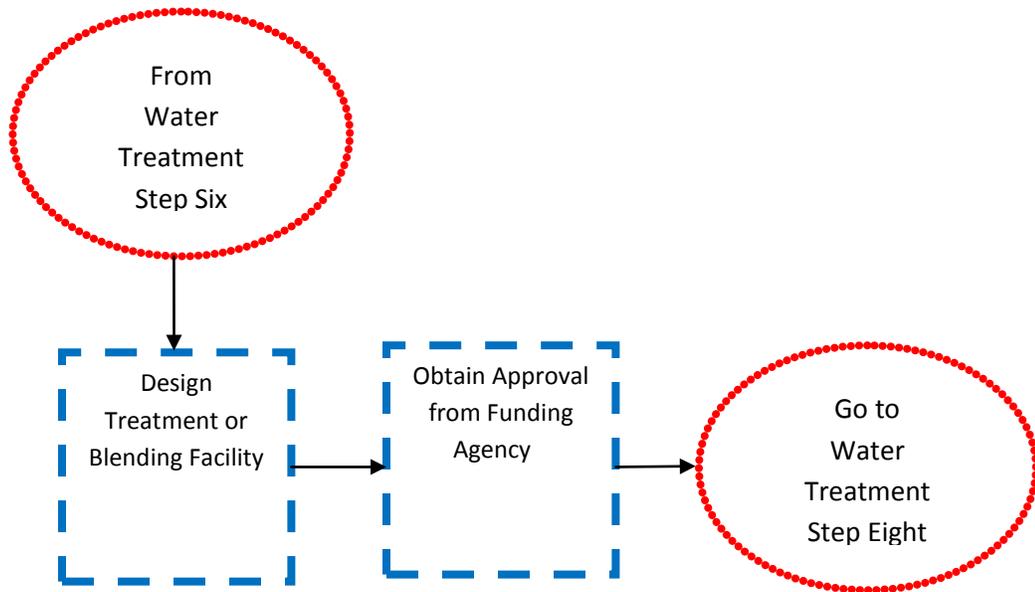
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 6



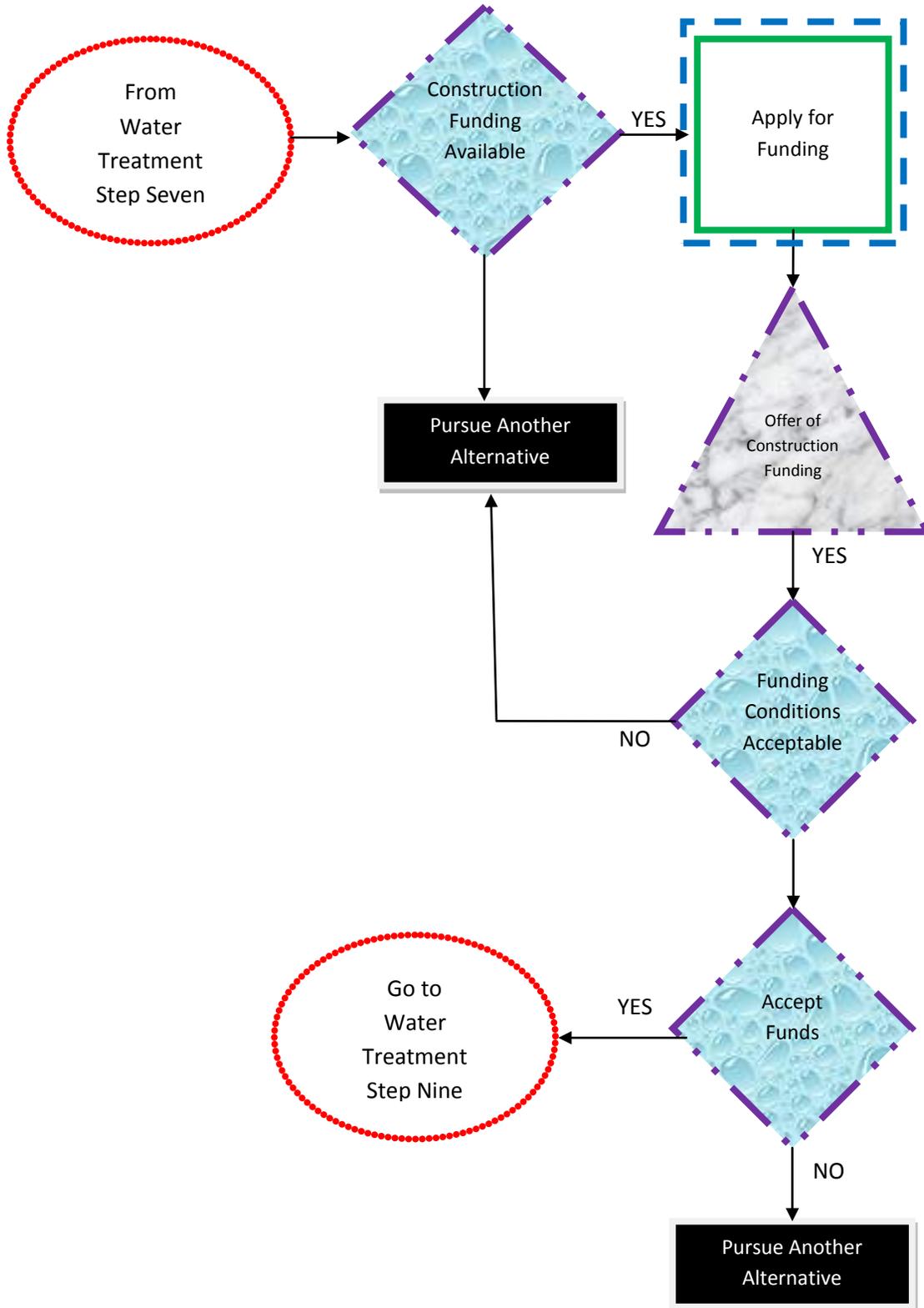
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 7



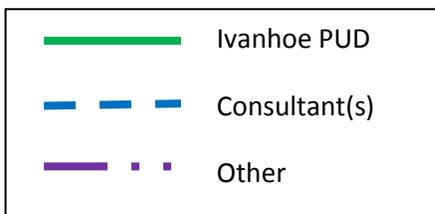
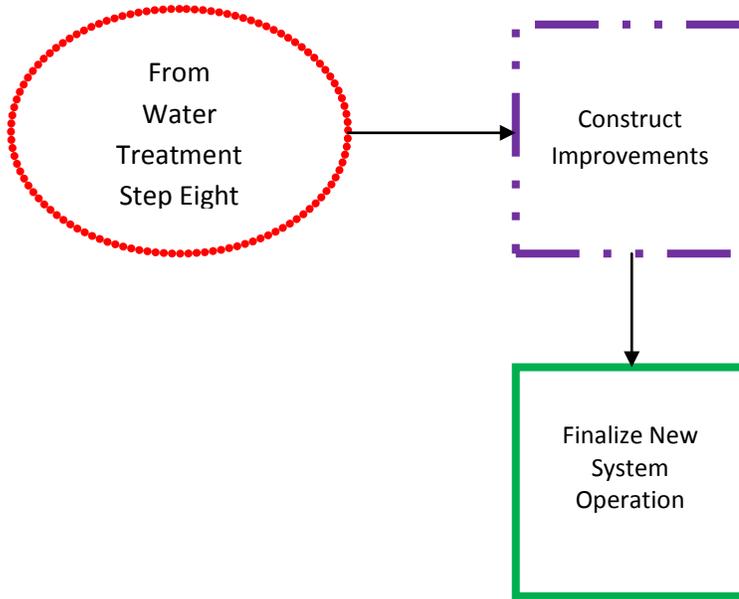
Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

Step 8



Ivanhoe PUD
Water Treatment Facility
On a New or Existing Water supply Well

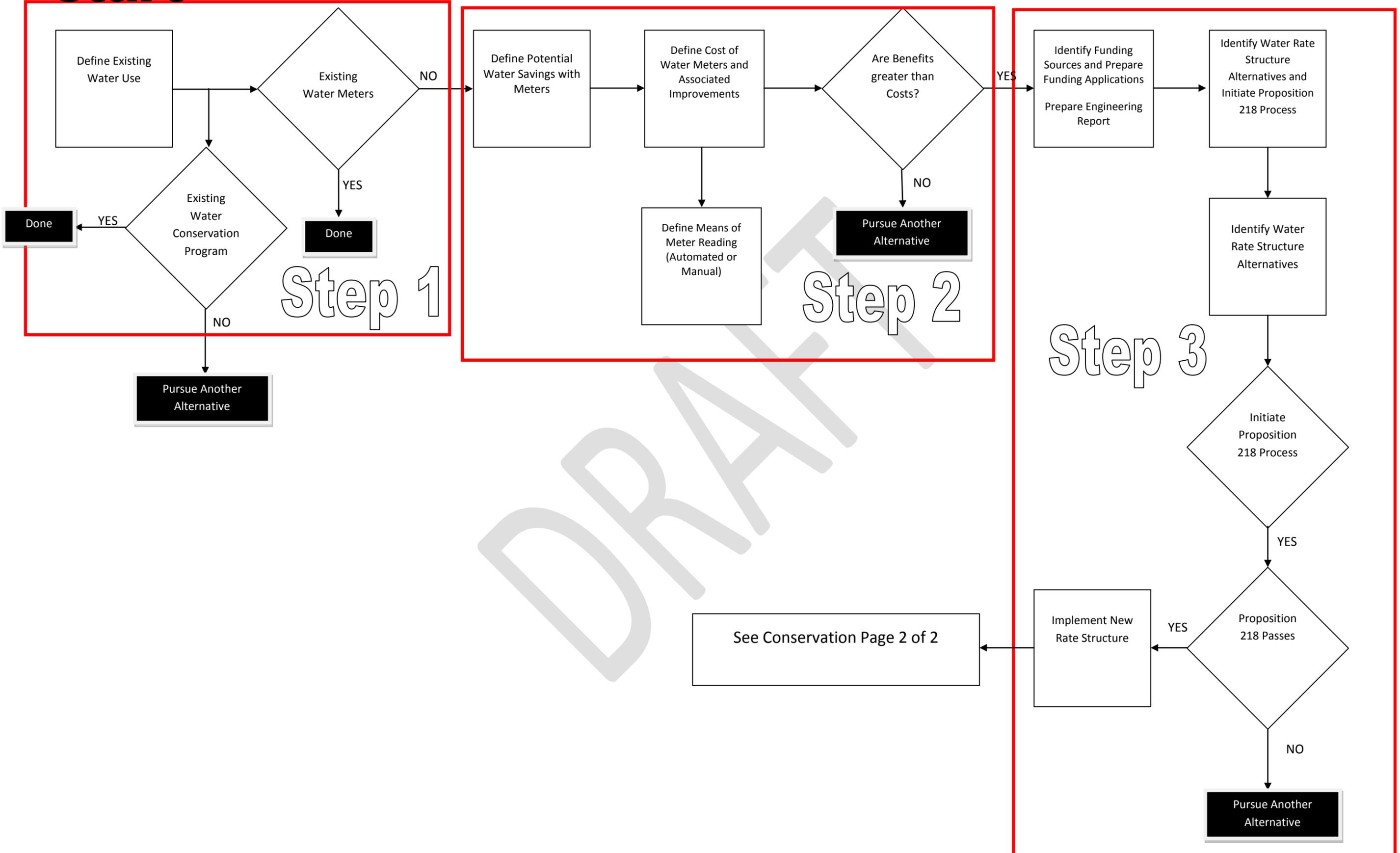
Step 9

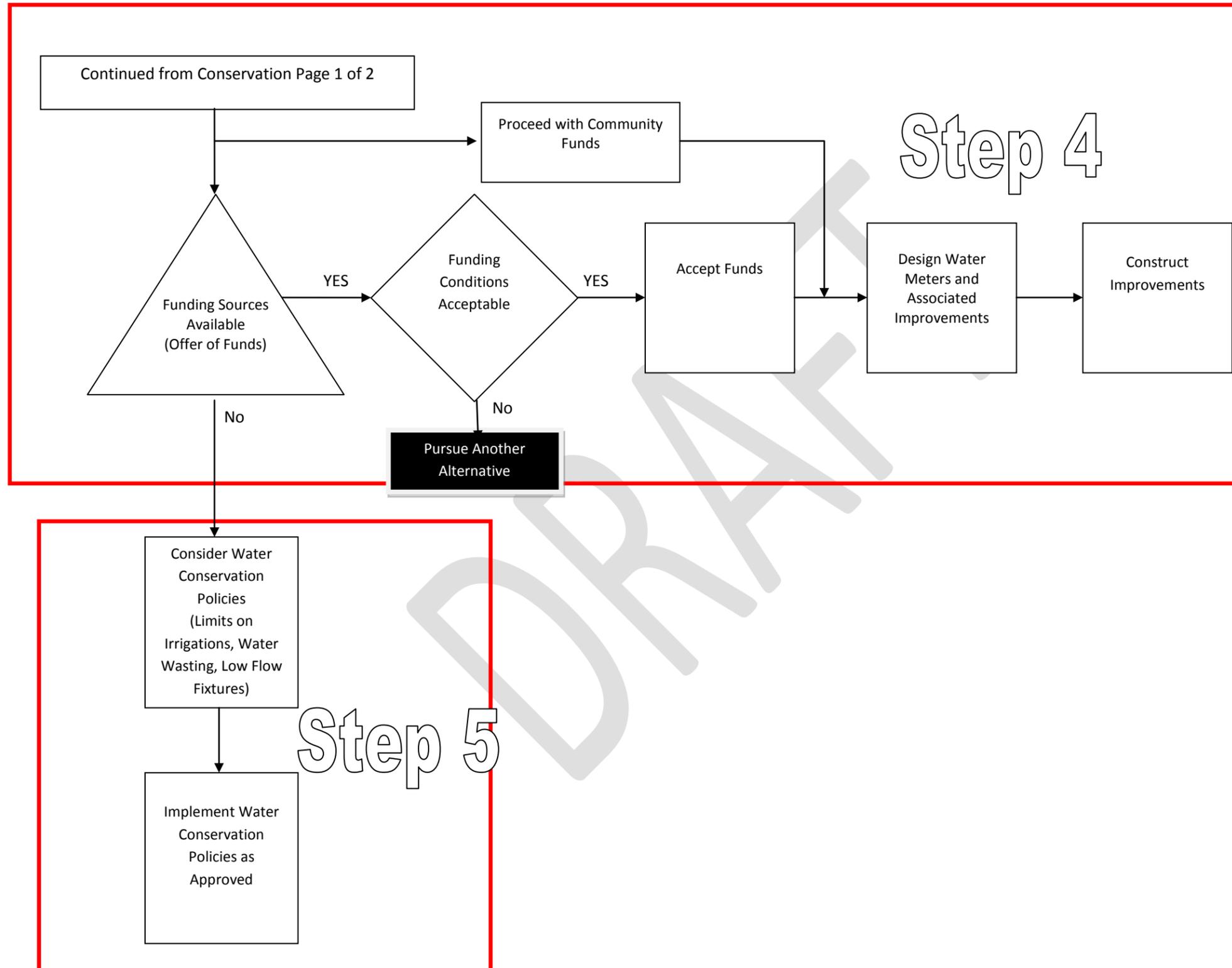


start

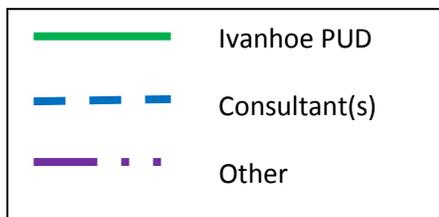
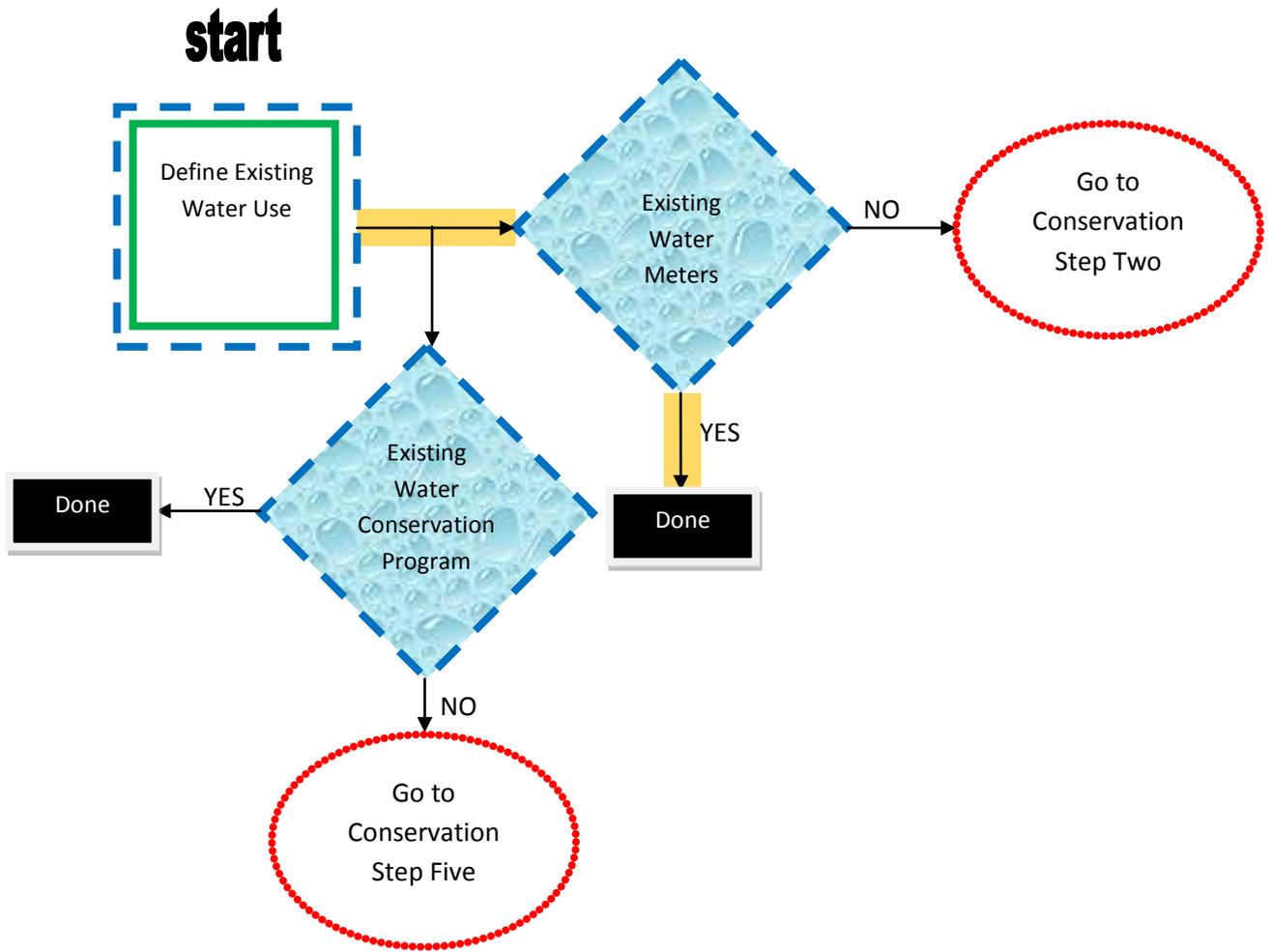
Conservation

Ivanhoe PUD

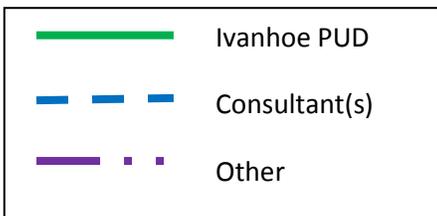
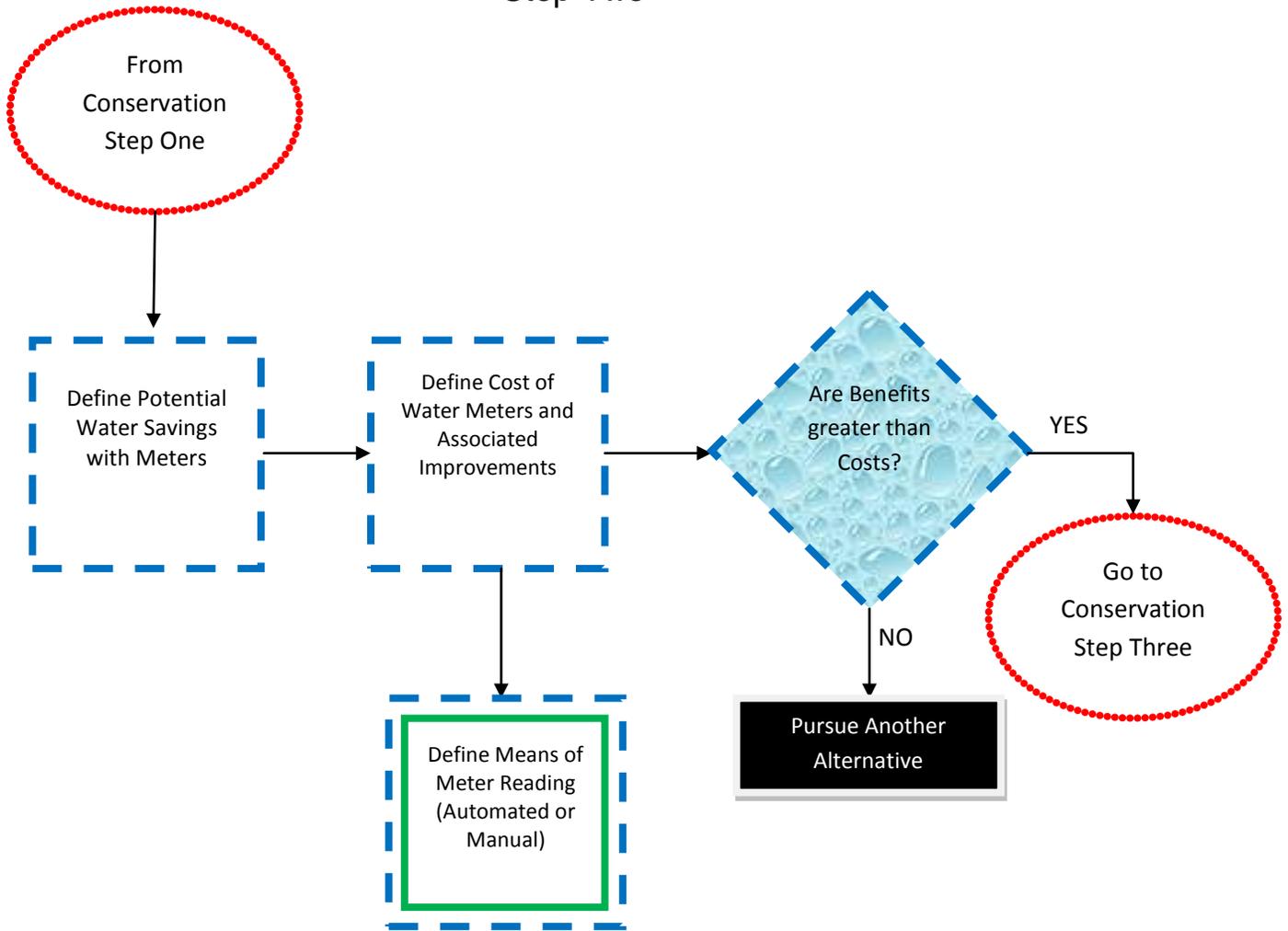




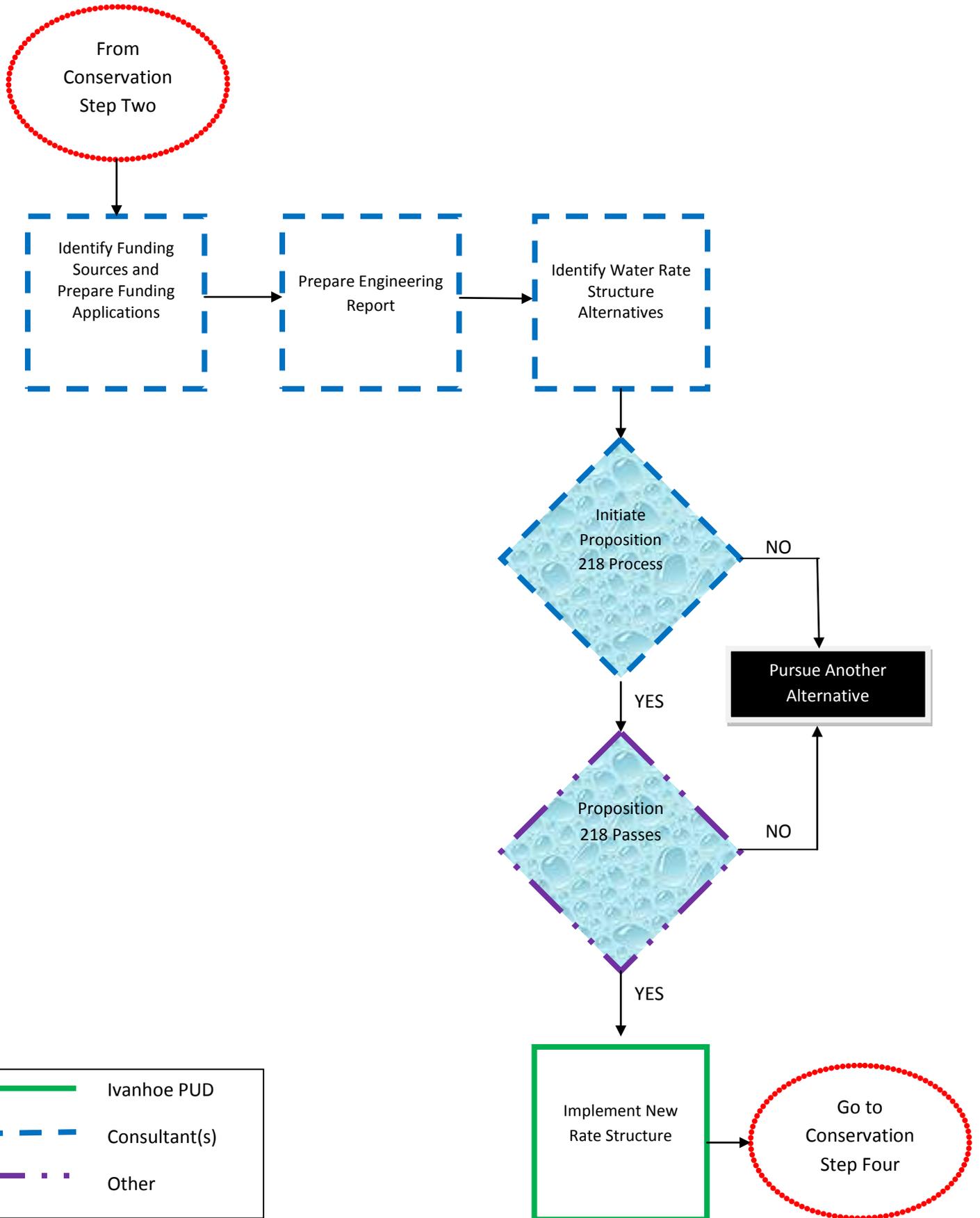
Ivanhoe PUD Conservation Step One



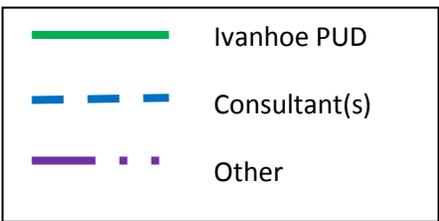
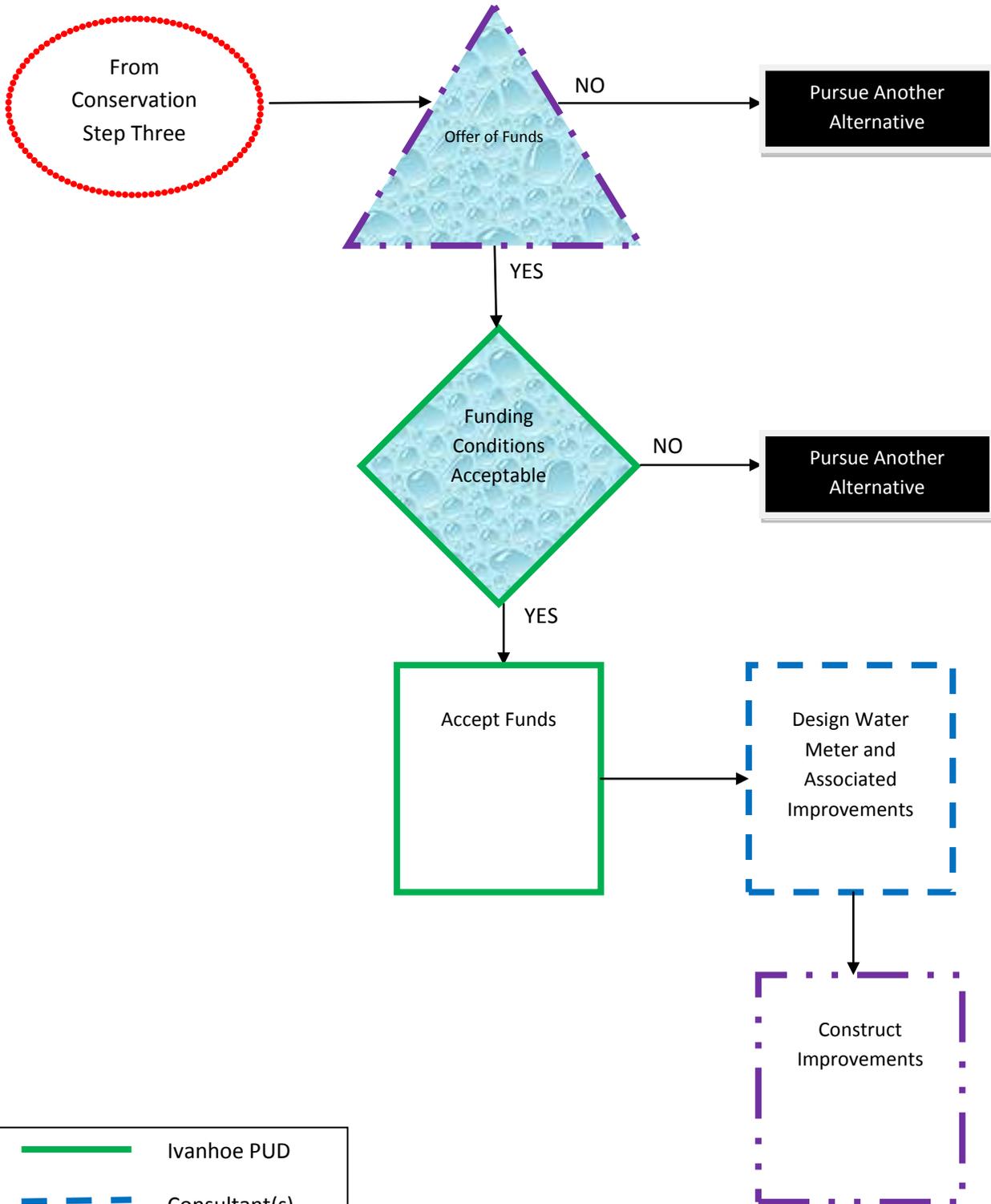
Ivanhoe PUD Conservation Step Two



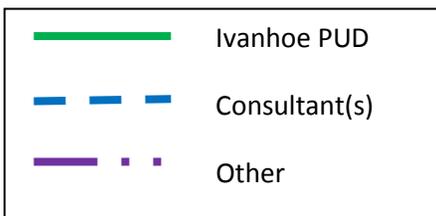
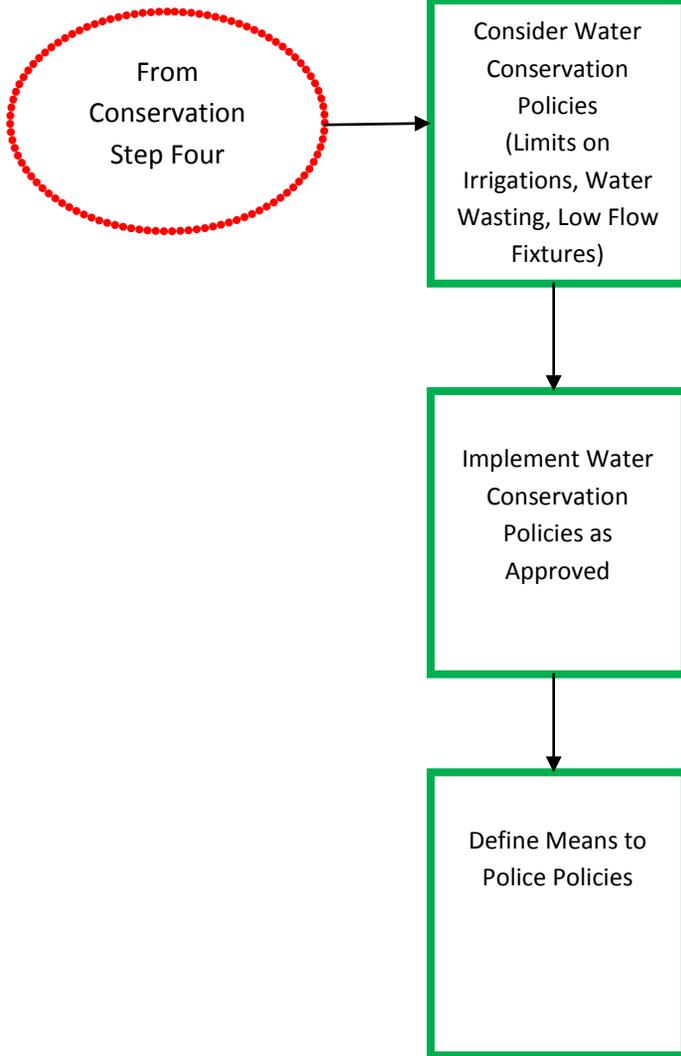
Ivanhoe PUD Conservation Step Three



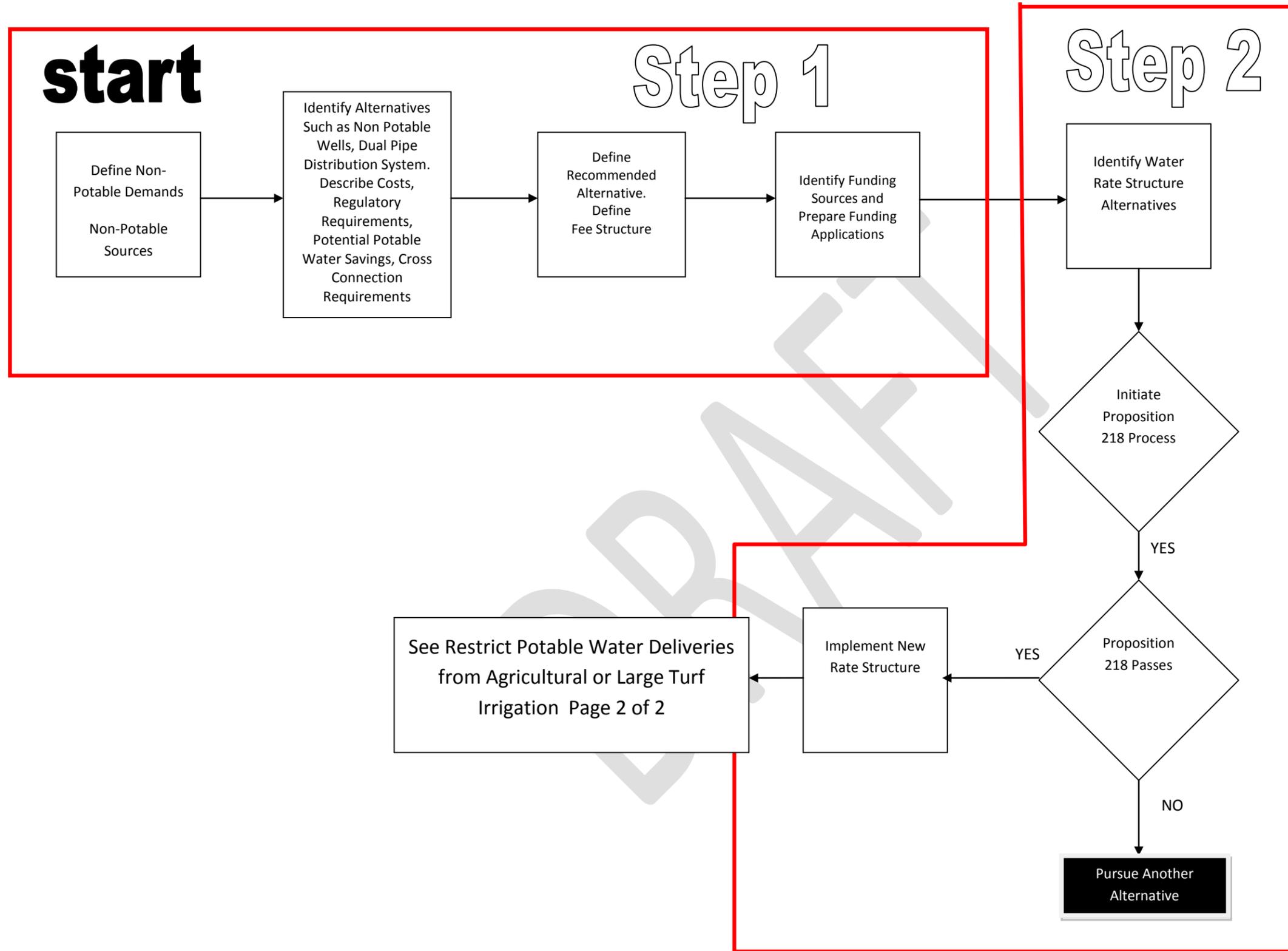
Ivanhoe PUD Conservation Step Four



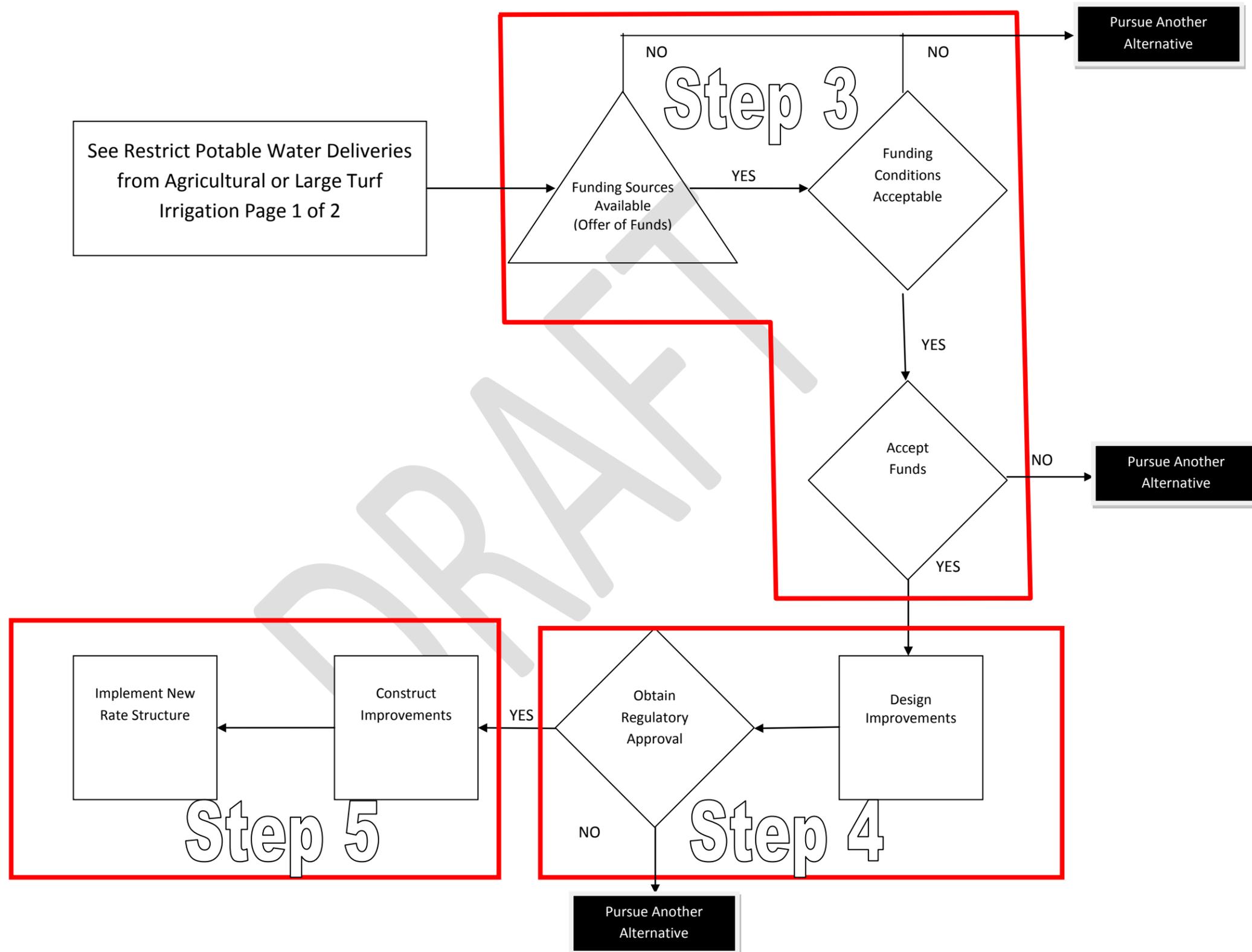
Ivanhoe PUD Conservation Step Five



(Potential)



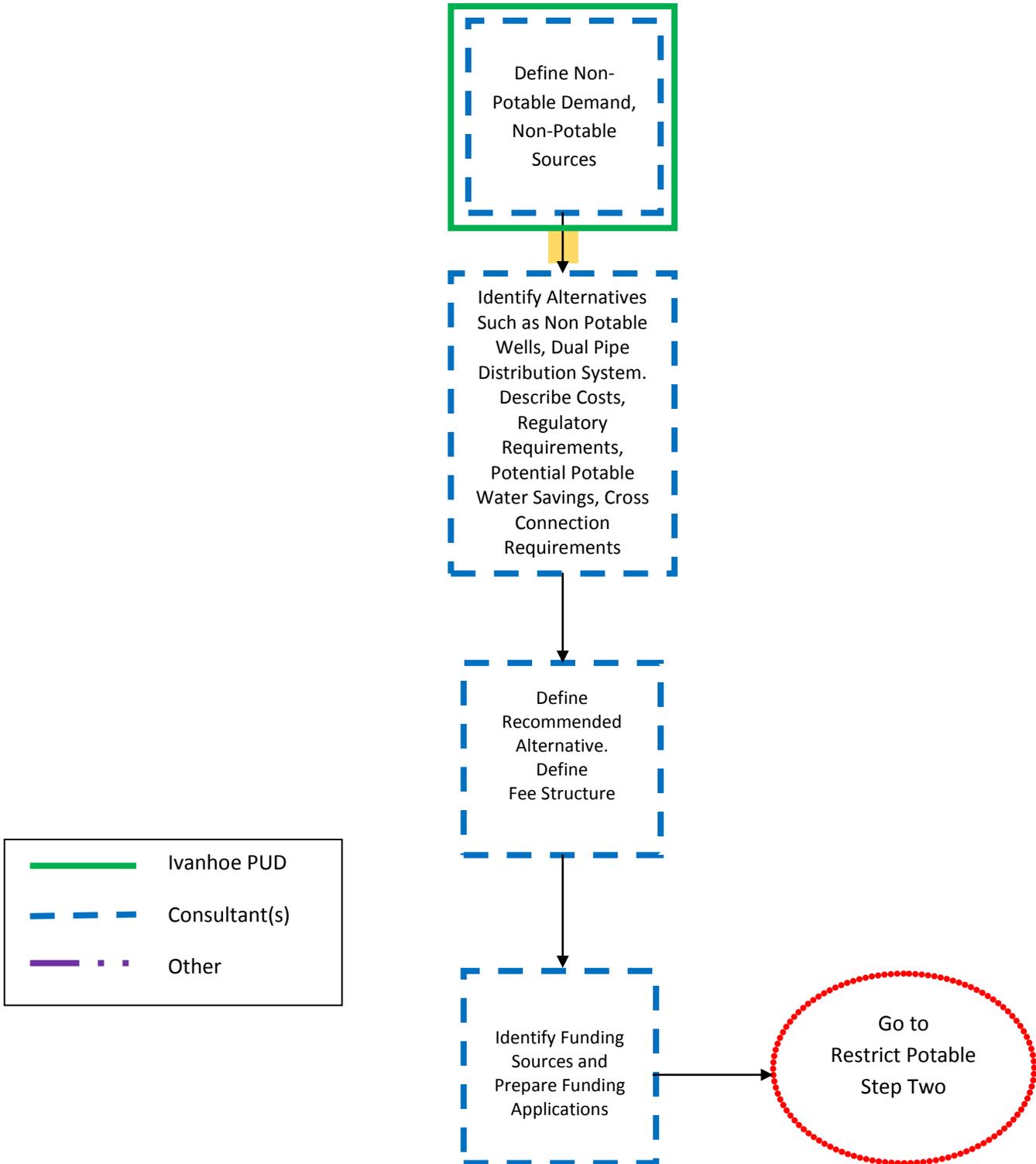
(Potential)



Ivanhoe PUD

Restrict Potable Water Deliveries from Agriculture or Large Turf Irrigation

Step One



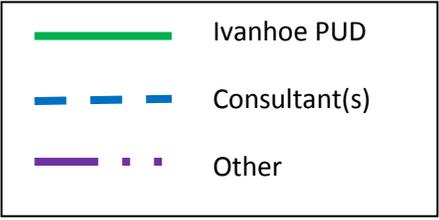
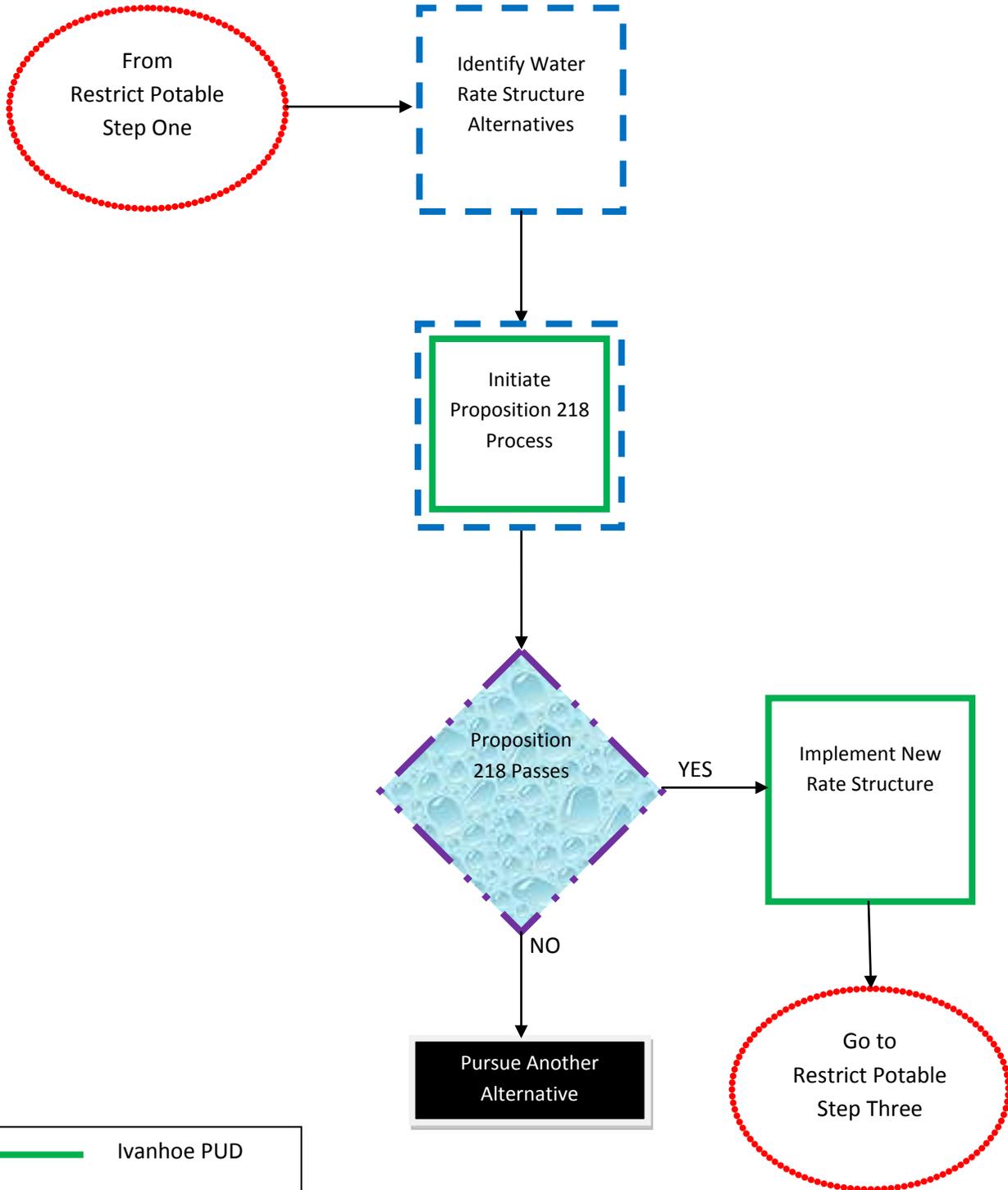
Ivanhoe PUD
Restrict Potable Water Deliveries from Agriculture
or Large Turf Irrigation

Step One

Place a meter at the service for the school and other large users.

Ivanhoe PUD
Restrict Potable Water Deliveries from Agriculture
or Large Turf Irrigation

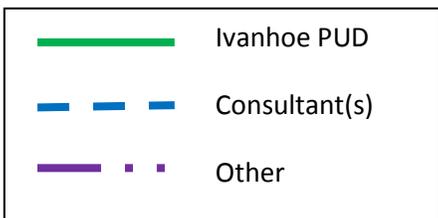
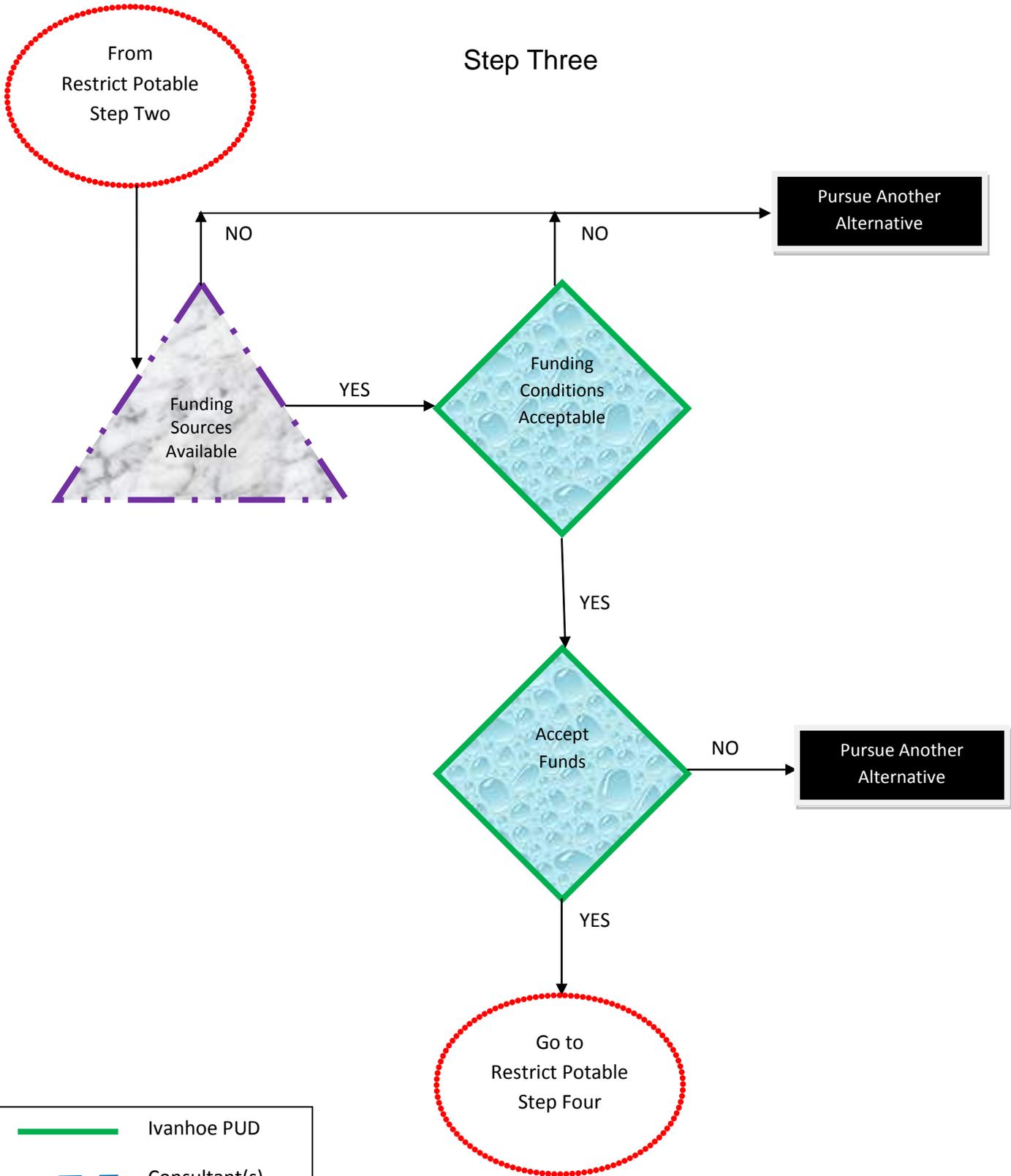
Step Two



Ivanhoe PUD

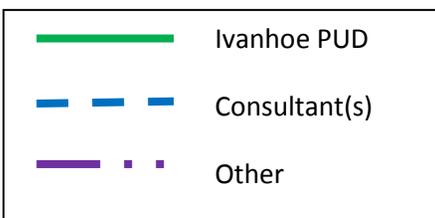
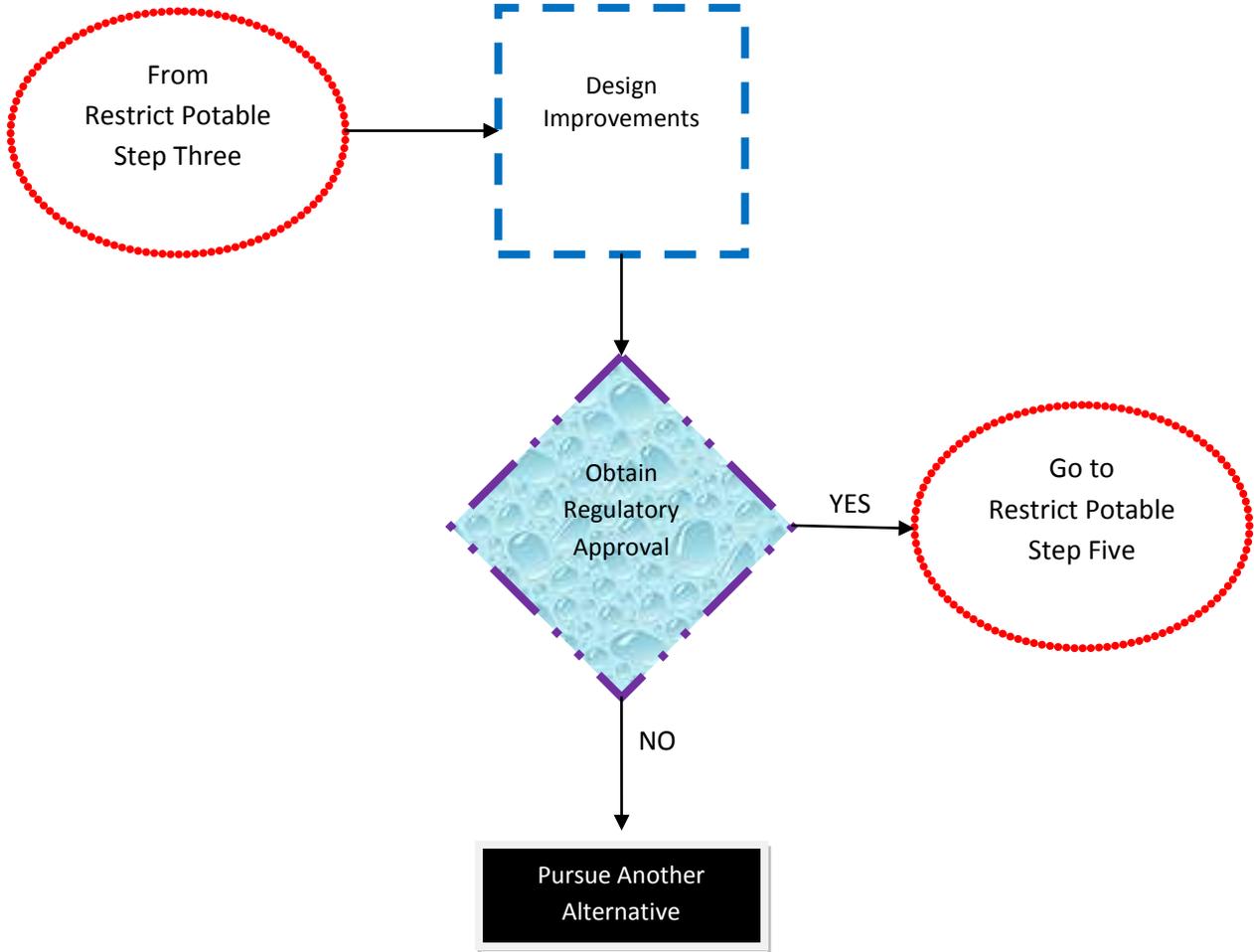
Restrict Potable Water Deliveries from Agriculture or Large Turf Irrigation

Step Three

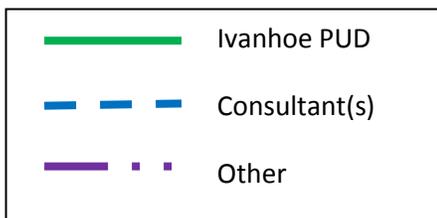
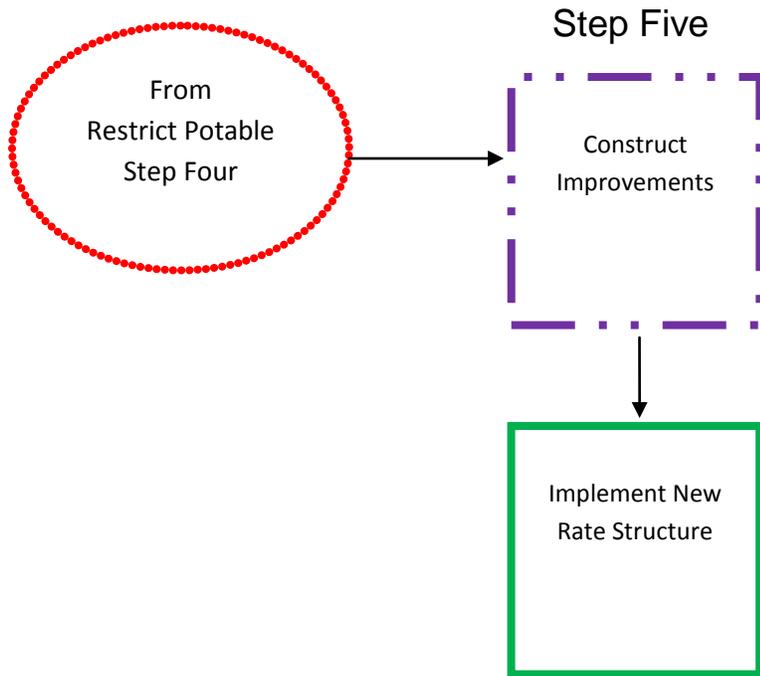


Ivanhoe PUD
Restrict Potable Water Deliveries from Agriculture
or Large Turf Irrigation

Step Four



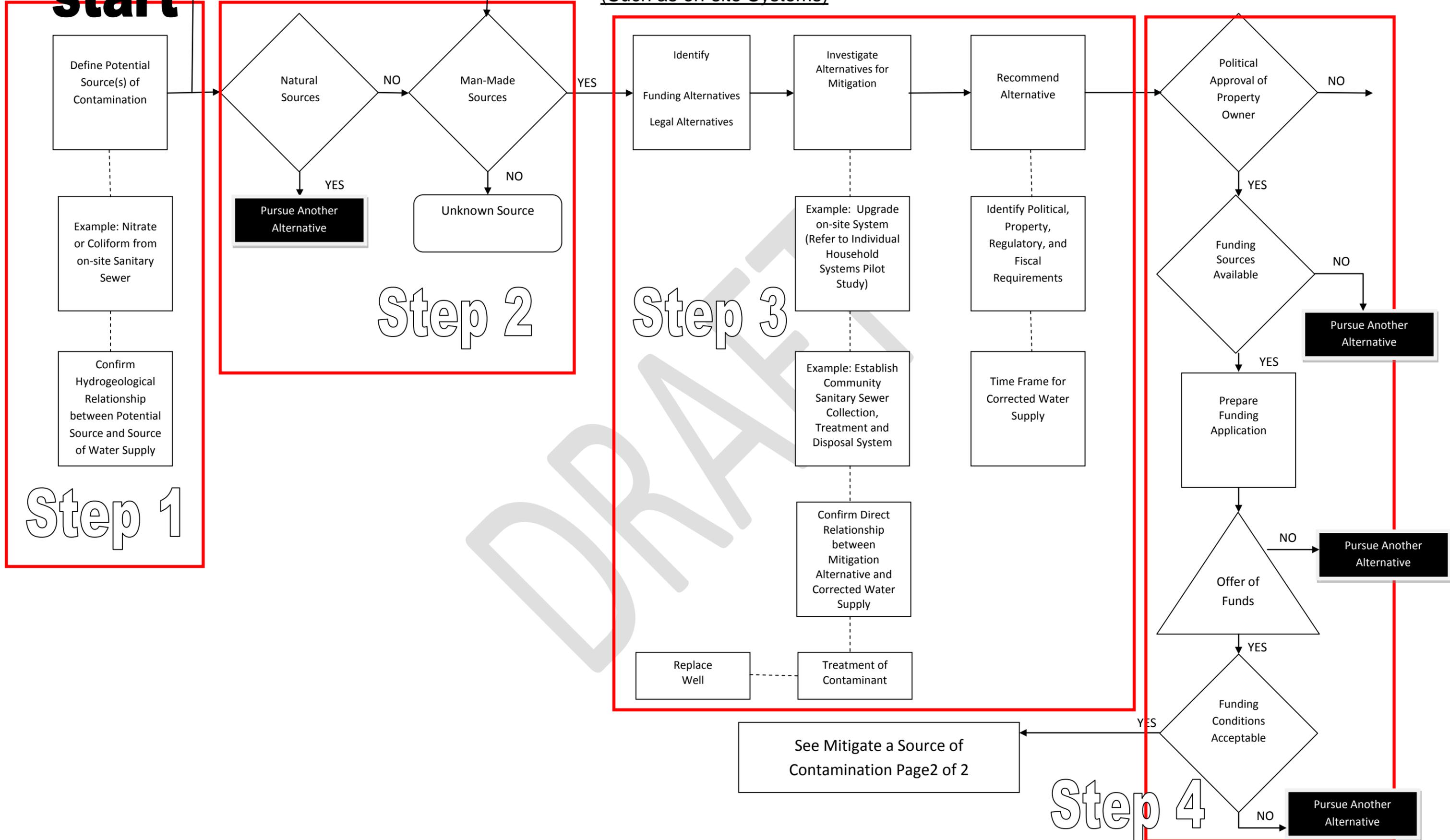
Ivanhoe PUD
Restrict Potable Water Deliveries from Agriculture
or Large Turf Irrigation



start

Mitigate a Source of Contamination (Such as on-site Systems)

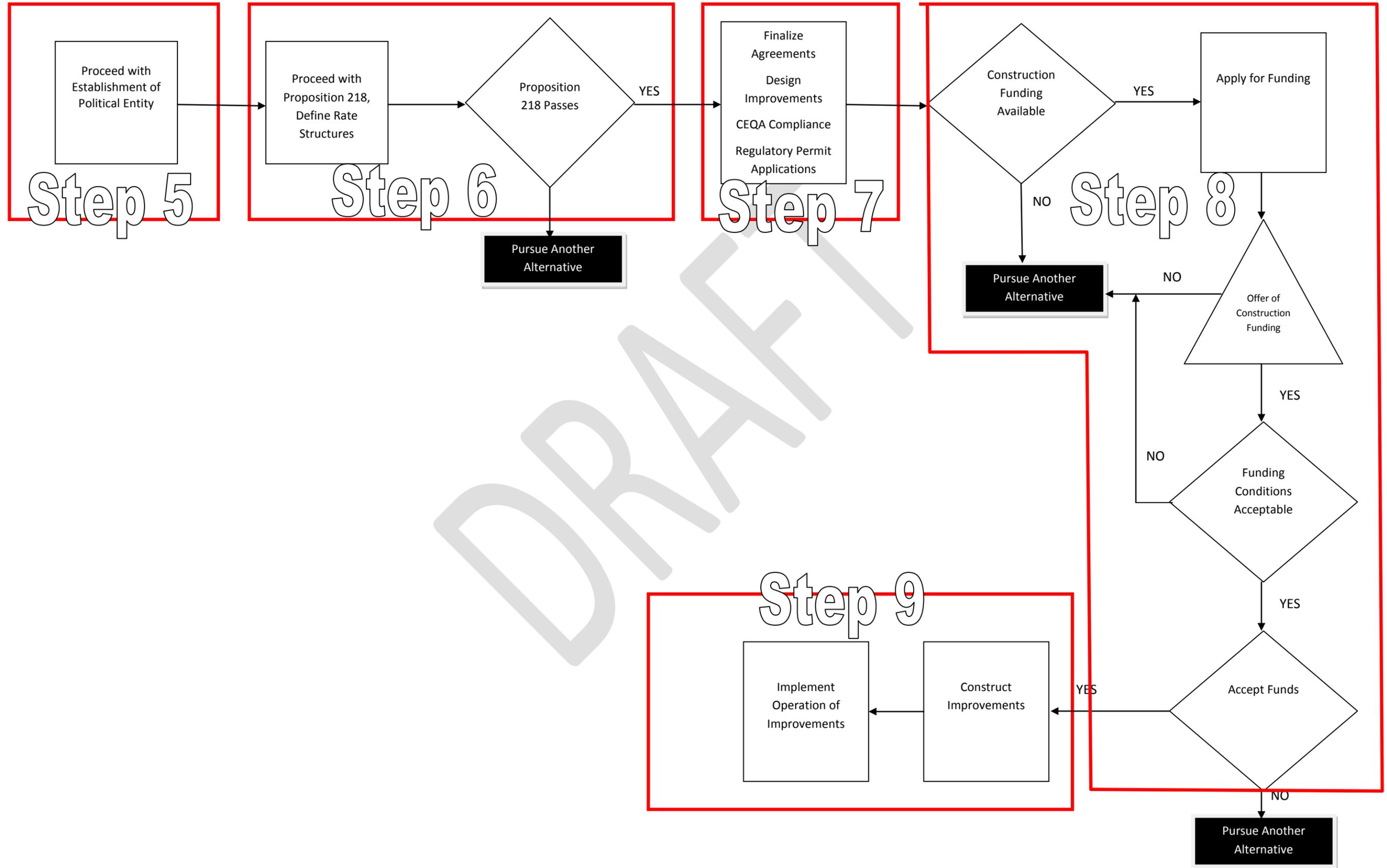
Ivanhoe PUD



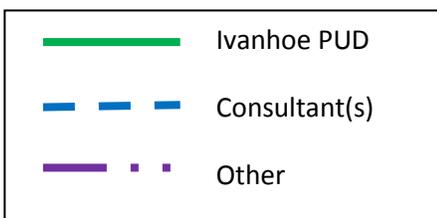
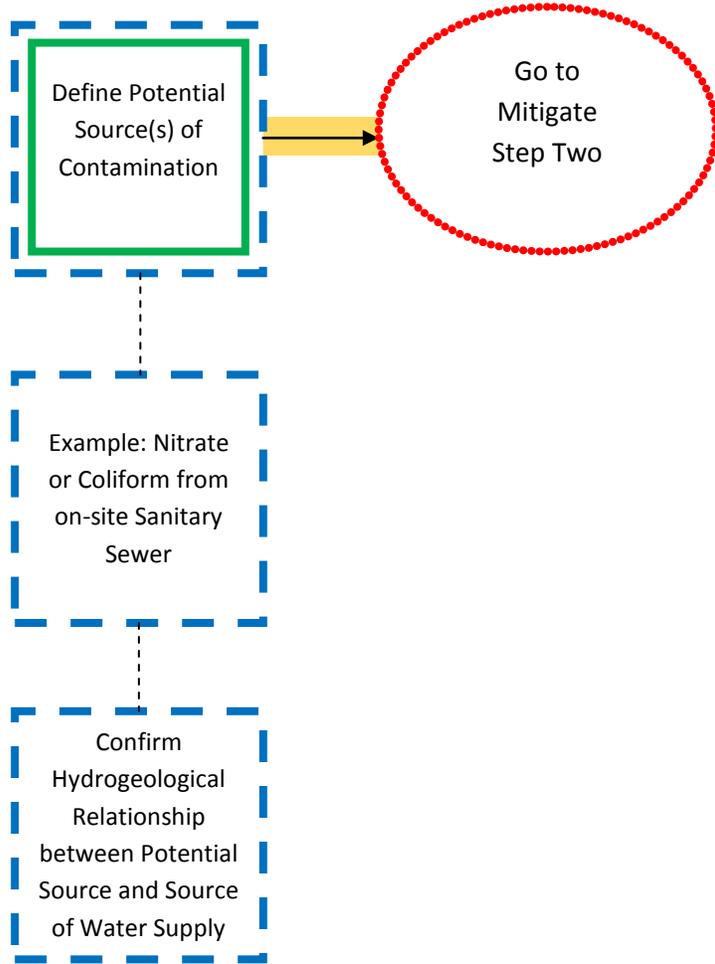
See Mitigate a Source of Contamination Page 1 of 2

Mitigate a Source of Contamination (Such as on-site Systems)

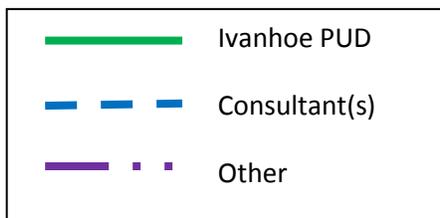
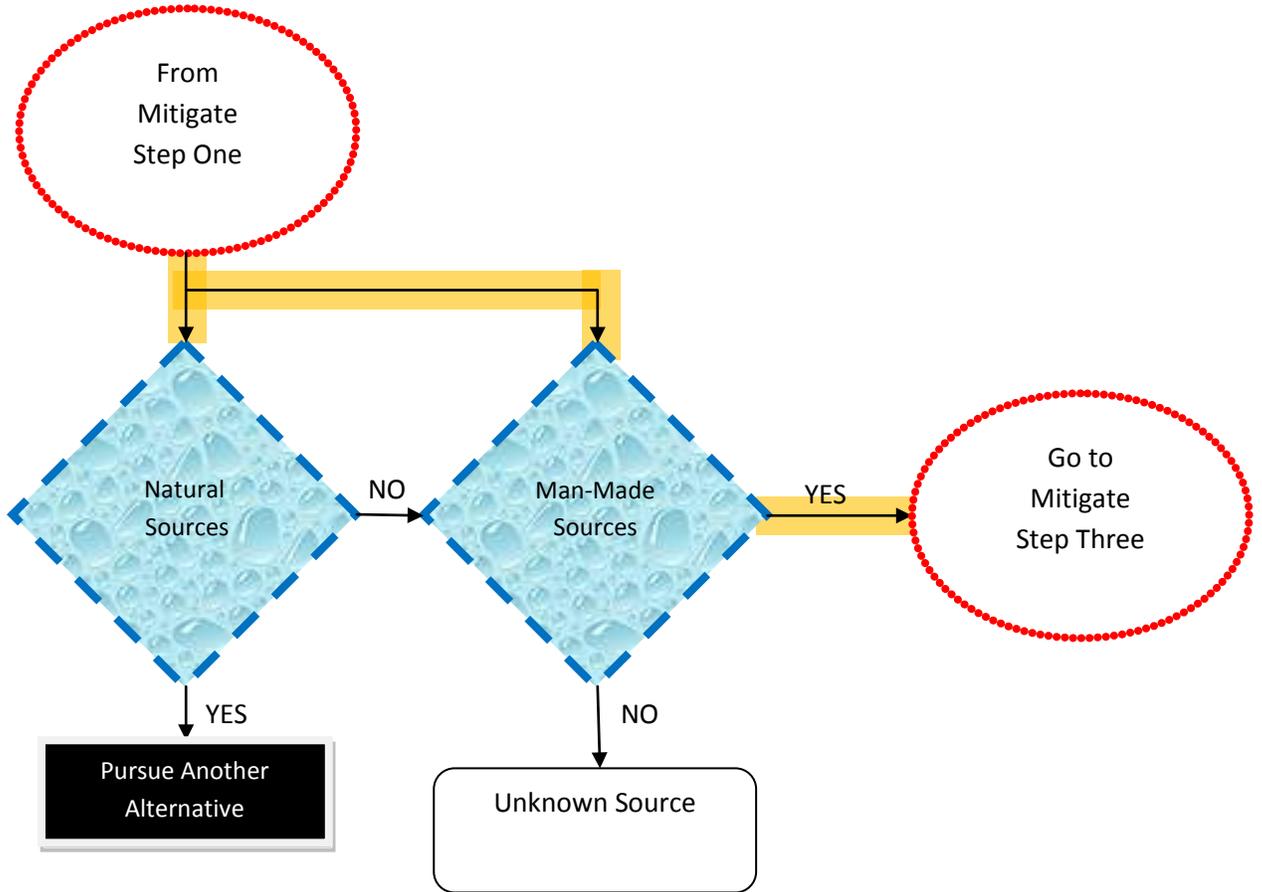
Ivanhoe PUD



Ivanhoe PUD
Mitigate a Source of Contamination
Step 1



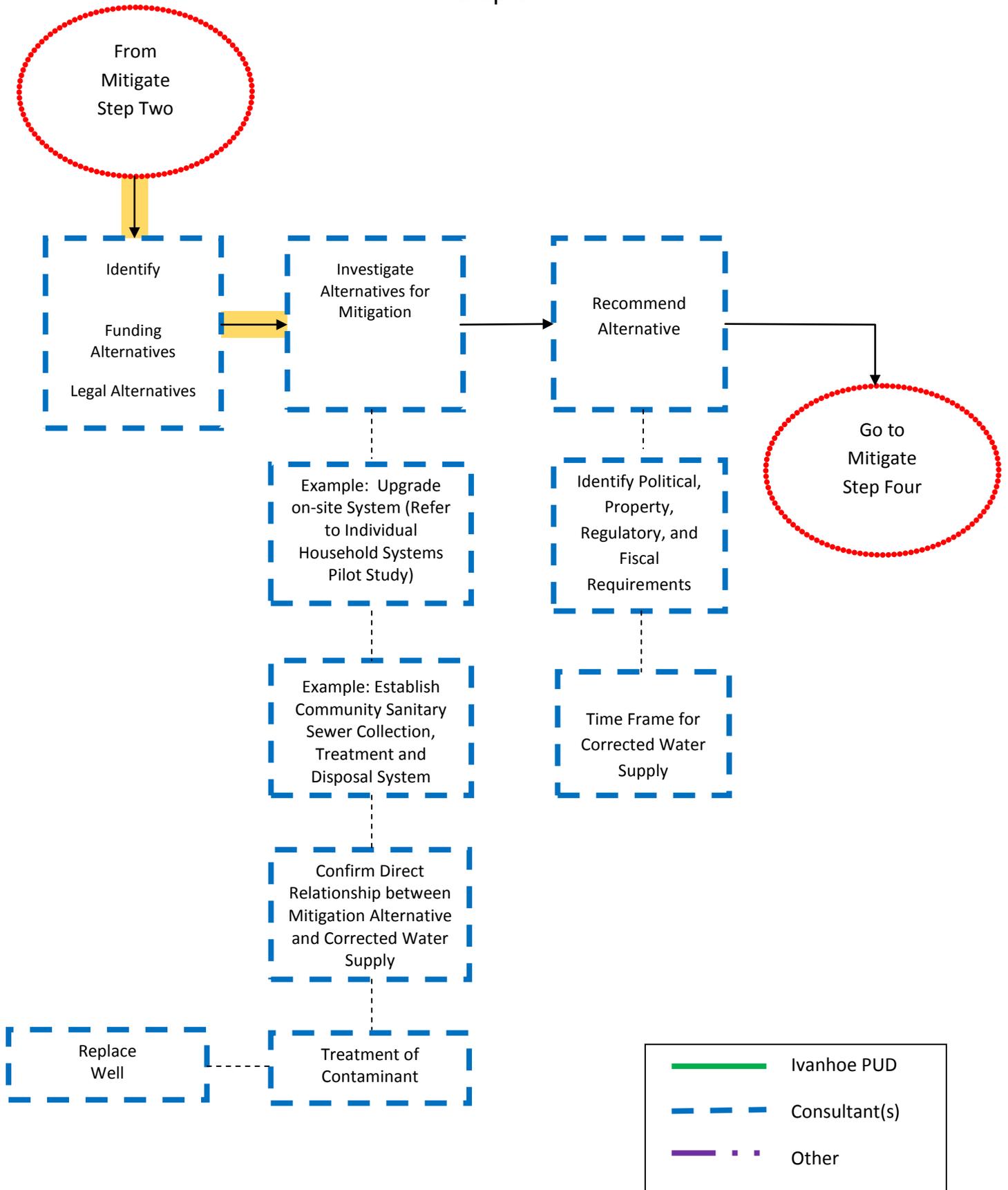
Ivanhoe PUD
Mitigate a Source of Contamination
Step 2



Ivanhoe PUD

Mitigate a Source of Contamination

Step 3

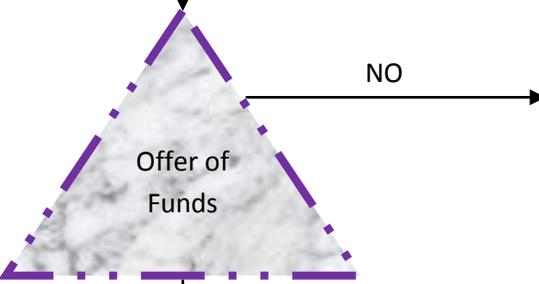
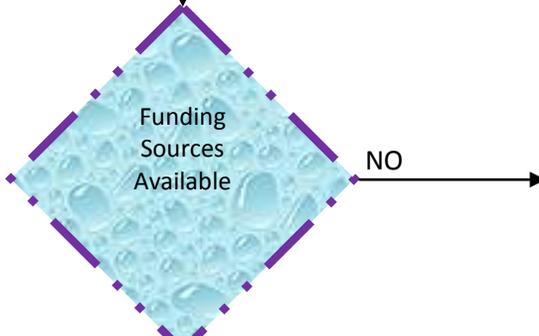
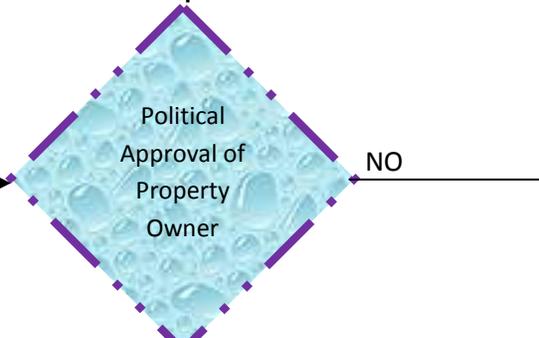


Ivanhoe PUD

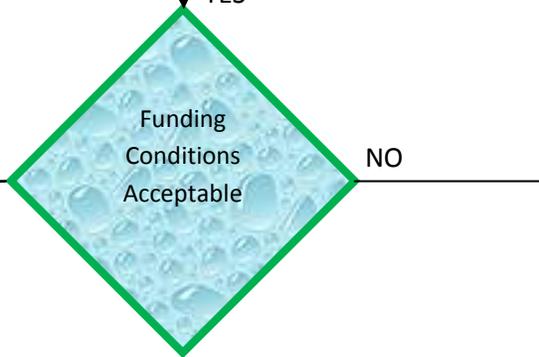
Mitigate a Source of Contamination

Step 4

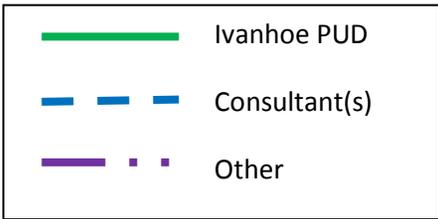
From Mitigate Step Three



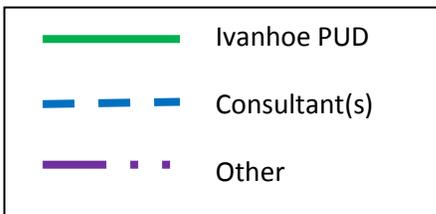
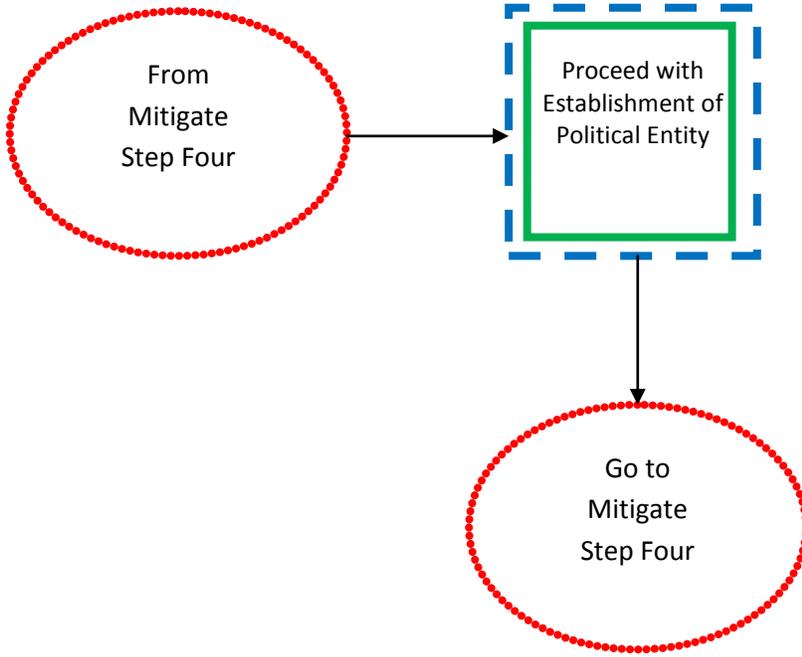
Go to Mitigate Step Five



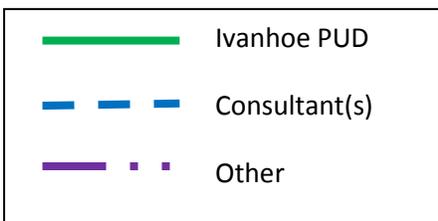
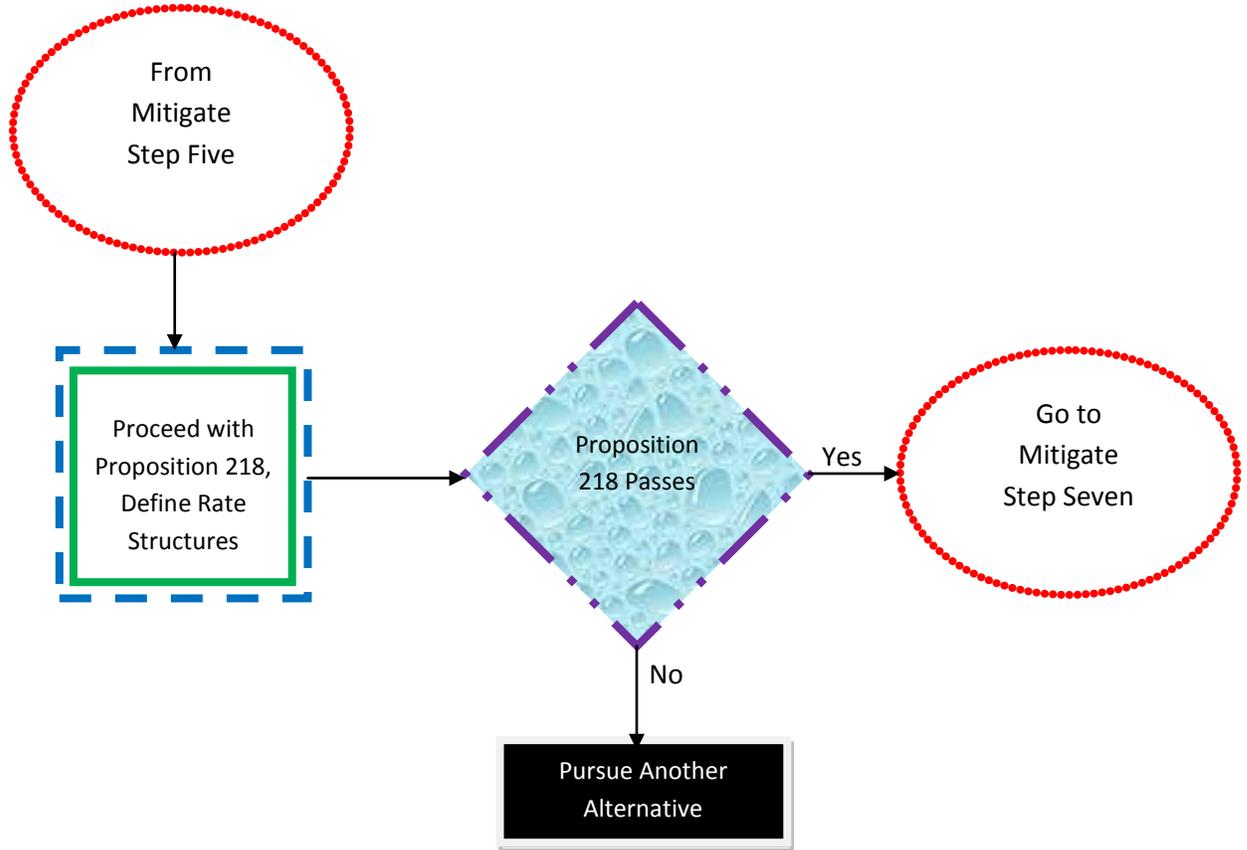
Pursue Another Alternative



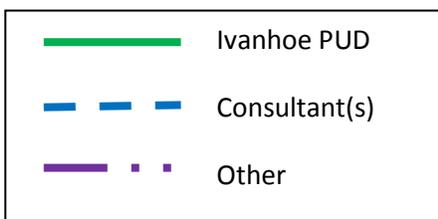
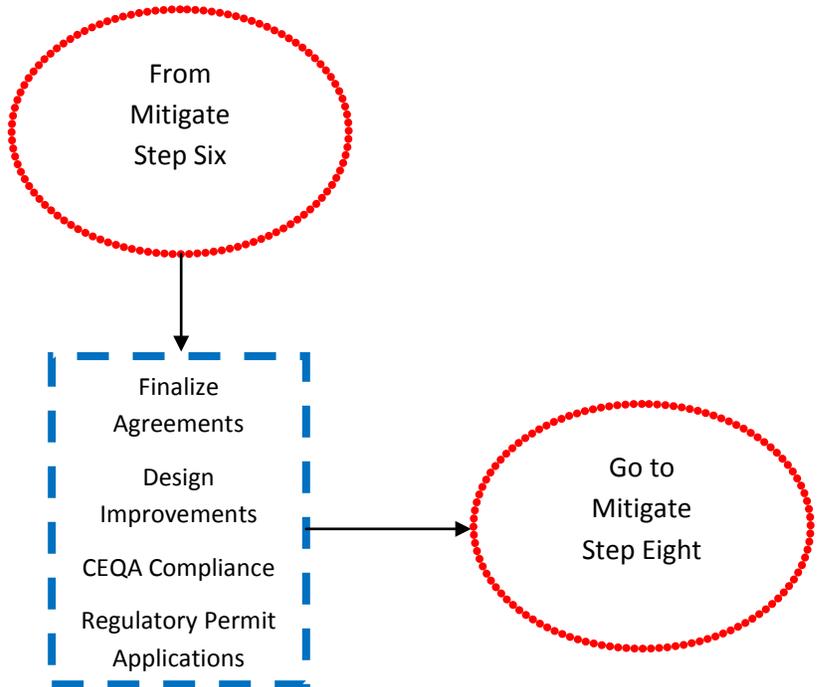
Ivanhoe PUD
Mitigate a Source of Contamination
Step 5



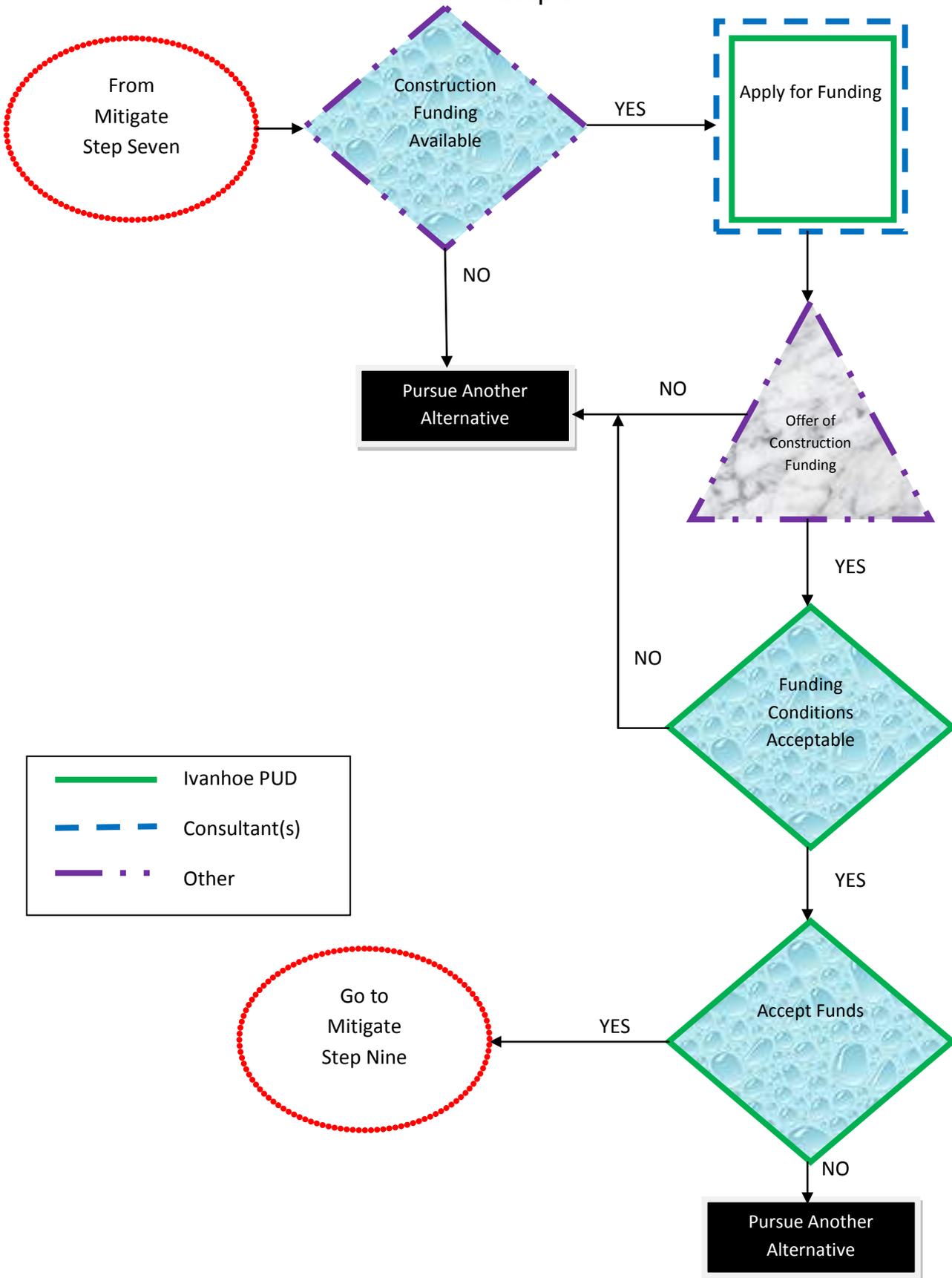
Ivanhoe PUD
Mitigate a Source of Contamination
Step 6



Ivanhoe PUD
Mitigate a Source of Contamination
Step 7



Ivanhoe PUD
Mitigate a Source of Contamination
Step 8



- Ivanhoe PUD
- Consultant(s)
- Other

Ivanhoe PUD
Mitigate a Source of Contamination
Step 9

