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Nebraska
Department of Natural Resources



Overview

- Water Appropriations
- NDNR Field Office Operations
- CWM in Water Management & Planning

Surface Water Appropriations for Irrigation

- ❑ Overview of Surface Water Irrigation Rights
- ❑ Statutes and Nebraska Constitution
- ❑ Making An Application to Appropriate Water
- ❑ Perfecting An Appropriation
- ❑ Permit Maintenance
- ❑ Cancellation / Adjudication

Surface Water Irrigation Rights General Concepts

- ❑ Rights of surface water irrigation in Nebraska exist only as created and defined in constitutional provisions and statutes
- ❑ Constitution and statutes recognize and protect irrigation using surface water from Nebraska's natural streams
- ❑ State issued surface water rights become vested as of date of appropriation
- ❑ A perfected surface water appropriation for irrigation becomes a property right and adds value to the land to which it is appurtenant
- ❑ The current system of water rights administration maintains order

Department of Natural Resources (DNR) General Authority

❑ Neb. Rev. Stat. 61-206

- ❑ The Department of Natural Resources is given jurisdiction over all matters pertaining to water rights for irrigation, power, or other useful purposes except as such jurisdiction is specifically limited by statute.
- ❑ It may refuse to allow any water to be used by claimants until their rights have been determined and made of record.

Historical Events

- ❑ Territorial adoption of English Common Law regarding use of surface water and riparian rights dates to about 1856
- ❑ Original Constitution adopted in 1875 did not refer to water rights
- ❑ Acts of 1877 and 1889 allowed for development of surface water canal projects and organization of entities to construct irrigation and water power works
- ❑ Act of April 4, 1895 created current centralized system of issuing and administering surface water rights
- ❑ There was a constitutional convention in 1920 where several miscellaneous articles related to surface water rights were adopted

Use of Water from Nebraska's Streams

- ❑ Before 1895 a Claim could be posted at proposed Diversion site and intentions filed in local County Courthouse – this led to a lot of confusion, so...
- ❑ By popular demand the Act of April 4, 1895 was passed that set up our current system of surface water appropriation of the public waters and the state-wide system of water right administration
- ❑ Existing Riparian users and Claims could still be exercised and quantified as needed through the courts or subsequent state agencies authorized by statute

Act of April 4, 1895

Provisions for Surface Water

- ❑ **Doctrine of Prior Appropriation** - State Board of Irrigation created to bring order and certainty from the chaotic system that existed prior to passing the Act
- ❑ Authorized State Board of Irrigation (now the Department of Natural Resources) to act on applications for the use of unappropriated water from streams
- ❑ Administration of water rights by state water superintendants in 2 main divisions
- ❑ Process of adjudicating established water rights in order to quantify and prioritize them on streams state-wide (almost 1000 were certified in first 3 years)
- ❑ New Permits were to be issued specifying **priority, amount, purpose and location**

Act of April 4, 1895

Provisions for Surface Water Continued

- ❑ Order of **Preference** (1st Domestic, 2nd Agriculture, 3rd Manufacturing), which was later added to the constitution
- ❑ Declared Irrigation a “natural want”, added to constitution in 1920
- ❑ 1 Cubic Foot per Second (CFS) was max diversion rate for every 70 acres of land
- ❑ Prohibited Transbasin Diversions and Changes in Place of Use (now it is allowed)
- ❑ Facilitated the formation of irrigation districts

Appropriation or Water Right? Call it what you wish, but...

- ❑ After April 4, 1895 to acquire a surface water right for a new use an application to the state was required in most instances
- ❑ The Act dedicated theretofore unappropriated waters of every natural stream to the public and any new use required the project proponent to request to put those public waters to a beneficial use
- ❑ The Right to Beneficially Use the public surface water in Priority without waste may be obtained from the state – no one may own it

Nebraska Revised Statutes Fundamental Tenets

- ❑ 46-201 Water for irrigation declared a natural want
- ❑ 46-202 Water in natural streams is public property and subject to appropriation. Water in reservoirs may be further appropriated (Storage Use)
- ❑ 46-203 As between appropriators, the one first in time is first in right
- ❑ 46-204 The right to divert unappropriated waters of every natural stream for beneficial use shall never be denied except when such denial is demanded by the public interest

Nebraska Revised Statutes Fundamental Tenets

- 46-204 Priority of appropriation shall give the better right as between those using the water for the same purposes, but when the waters of any natural stream are not sufficient for the use of all those desiring the use of the same, those using the water for **domestic** purposes shall have the **preference** over those claiming it for any other purpose, and those using the water for **agricultural** purposes shall have the preference over those using the same for **manufacturing** purposes

Nebraska Revised Statutes Fundamental Tenets

- ❑ 46-205 The priority of an appropriation shall date from the filing of the application in the office of the Department of Natural Resources
- ❑ 46-206 The water appropriated from a river or stream shall not be turned or permitted to run into the waters or channel of any other river or stream
- ❑ 46-226(1) The method of determining the priority and amount of appropriation shall be fixed by the department

Nebraska Revised Statutes Fundamental Tenets

- ❑ 46-231 An allotment from the natural flow of streams for irrigation shall not exceed **one cubic foot per second of time for each seventy acres** of land and shall not exceed **three acre-feet** in the aggregate during one calendar year for each acre of land for which such appropriation has been made, and an allotment shall **not exceed the least amount** of water that experience may indicate is necessary, in the exercise of good husbandry, for the production of crops.
- ❑ Such limitations do not apply to use of storage waters

Nebraska Constitution

- ❑ Article XV Sections 4-7 from Constitutional Convention in 1920 closely matches statutes dating from Act of 1895
 - ❑ Section 4 – Use of surface water for domestic and irrigation uses declared a “natural want”
 - ❑ Section 5 – Water in natural streams dedicated to the people
 - ❑ Section 6 - The right to divert unappropriated waters of every natural stream for beneficial use shall never be denied except when such denial is demanded by the public interest
 - ❑ Same section validated **PREFERENCES** within water use categories
 - ❑ Section 7 – Water for Power is a public use and may be leased

Applications

Neb. Rev. Stat. 46-233

- ❑ Application to appropriate water must be made to DNR before commencing construction or taking water
- ❑ Application must list purpose, water source, location of diversion, location of use, amount requested, time to complete construction, time of first beneficial use
- ❑ Defective Applications are returned with 90 day deadline
- ❑ Public Notice of applications – Newspaper & on DNR website
- ❑ Any other supporting information DNR deems necessary to complete a review of the application

Applications

Neb. Rev. Stat. 46-234

- ❑ Application may be Denied if - No unappropriated water is available OR Someone else's facilities are being used and no written agreement allowing such use is provided OR denial is demanded by public interest

Applications

Neb. Rev. Stat. 46-235

- ❑ **Approval-** If there is unappropriated water in the source of supply named in the application, if such application and appropriation when perfected are not otherwise detrimental to the public welfare, and if denial of the application is not demanded by the public interest, the department shall approve the application
- ❑ DNR may limit amount to less than requested, reduce time allowed to perfect the water right and impose any reasonable conditions deemed necessary to protect the public interest

Applications

Neb. Rev. Stat. 46-714(12)

- ❑ Fully Appropriated Basin Designation Status Change
 - ❑ During the four-year period following the status change, the department shall ensure that any new appropriation granted will not cause the basin, subbasin, or reach to be fully appropriated based on the most recent basin determination.
 - ❑ Limit on new surface water natural flow permits to no more than 834 irrigated acres in per affected NRD during each calendar year of the four-year period following status change

NE Game & Parks Commission (NGPC) Neb. Rev. Stat. 37-807(3)

- ❑ **Nongame and Endangered Species Conservation Act.**
 - ❑ State agencies shall insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered or threatened species or result in the destruction or modification of habitat of such species which is determined by the commission to be critical

- ❑ **The Department consults with NGPC on Applications**

- ❑ **Political Subdivisions are exempt, including NRDs**

Applications

Neb. Rev. Stat. 46-237

- ❑ **Map or plat** shall be filed within 6 months after approval and shall show the source from which the water is to be taken and all proposed dams, dikes, reservoirs, canals, powerhouses, and other structures for the purpose of storing, conveying, or using water for any purpose
- ❑ For irrigation the map shall show all lands to be irrigated
- ❑ No rights shall be deemed to have been acquired until the provisions of this section have been complied with

Applications

Pre and Post Decision Objections

- ❑ Any person with sufficient interest who may be substantially affected by DNR granting an application may petition the Department for a contested case hearing during the pendency of an application
- ❑ Any person who is aggrieved by a decision of the Department may also petition for a contested case. This may be the applicant or other interested parties

Your Irrigation Appropriation is Approved What do you get?

- ❑ You have received permission to beneficially and frugally use the water from the stream as prescribed in Approval Order which defines the use, amount, location and conditions of the permit
- ❑ It is not a guarantee of water and you may not injure senior appropriators while exercising your right
- ❑ You may call for water in times of shortage if there are upstream junior appropriators affecting your supply

Perfecting an Appropriation

- ❑ Water must be used for the beneficial purpose and at the approved location within the time allotted for perfection as specified in the approval order
- ❑ This is commonly described as the beneficial use period
- ❑ After the period has ended, DNR staff will conduct a field investigation to determine if and to what extent the new appropriation has been utilized
- ❑ Any unused portion will be canceled and any remaining portion will be considered a perfected water right

A Perfected Irrigation Appropriation

- ❑ Property right that attaches to the land under permit
- ❑ Adds value to appurtenant land
- ❑ May not be canceled without due process

Maintaining an Appropriation

- ❑ Water must be used for the beneficial purpose for which it was granted at least once every 5 years
- ❑ The appropriation must also have been used within any conditions imposed by order of the Department
- ❑ Regular use of appropriations is the surest way to maintain the water right
- ❑ Failure to use an appropriation for more than 5 consecutive years may subject the water right to cancellation

Cancelation / Adjudication

- ❑ Usually water must be used for the beneficial purpose for which permit was granted at least once every 5 years
- ❑ Abandoned appropriations may be voluntarily relinquished by the person or entity holding the right
- ❑ The Department may investigate the status of an appropriation in order to determine if it is subject to cancellation

Cancelation / Adjudication

- ❑ Surface water irrigation rights are appurtenant to specific tracts of land and have qualities of property rights
- ❑ Due process is required and the manner of cancelation is prescribed in statute
- ❑ Land owners and anyone with an equitable property interest must be informed of the proceedings

Cancelation / Adjudication

Neb. Rev. Stat. 46-229.02

❑ Field Investigation and Report

- ❑ Eyewitness Account from a Department Employee visiting the site
- ❑ Interview of Land Owner and any Operator
- ❑ Author of field report will relate statements or admissions made
- ❑ Aerial photography marked to show areas irrigated, if any
- ❑ Typed, signed, notarized Report of Field Investigation is produced

❑ Certification of Title Review

- ❑ Visit County Clerk / Register of Deeds – Owner of Record & Liens
- ❑ Further investigation if land in probate, divorce, court order etc
- ❑ Author of the title report will sign and date

Cancelation / Adjudication

Neb. Rev. Stat. 46-229.03

- ❑ **Preliminary Determination of Non-Use (PDNU)**
 - ❑ Department determines the water right is subject to cancelation
 - ❑ Notice is given to Land Owner, Lien Holders etc
 - ❑ 30 Days are given to Respond, which is optional
- ❑ **Notice Elements**
 - ❑ Appropriation number, purpose, priority, diversion point, land list
 - ❑ Description of Information Used to make determination including a copy of the Report of Field Investigation
 - ❑ Description of owner/lien holders options for a response
 - ❑ Contact Information at the Department, including telephone number
 - ❑ Form provided for filing a contested case to challenge cancelation

Cancelation / Adjudication Options to Respond to PDNU Notice

- ❑ Recipient of the Notice is provided with 3 options
 - 1) Take No Action
 - 2) Fill out and return contest form
 - 3) Have all responsible parties sign a voluntary relinquishment

- ❑ If No Contest to the Notice of PDNU or it's Relinquished
 - ❑ Department staff prepares an Order of Cancelation for part or all of the appropriation

Cancellation / Adjudication

Neb. Rev. Stat. 46-229.02

- ❑ **If Water Right holder wishes to contest the PDNU**
 - ❑ They file a contest with the basis for their complaint and any supporting documentation
 - ❑ Department reviews and may agree to dismiss the proceeding, proceed with only a partial cancellation based upon new information or may continue with original cancellation intention
 - ❑ Hearing is scheduled and Notice of Hearing is sent to all interested parties and published on the DNR website
 - ❑ Hearing is held and the Director rules on the matter by Order
 - ❑ The ruling may be appealed

Cancelation / Adjudication

Neb. Rev. Stat. 46-229.04

- ❑ **Excusable Reasons for Non-Use of an Appropriation**
 - ❑ Inadequate water supply
 - ❑ Federal, State or Local rules temporarily prevented such use
 - ❑ Use was unnecessary because of climatic conditions
 - ❑ Good husbandry would not have dictated water use
 - ❑ Diversion works or facilities were destroyed
 - ❑ Owner of Appropriation was in active military service
 - ❑ Legal proceedings prevented or restricted use of water
 - ❑ Land is in government set-aside program
 - ❑ In designated overappropriated basin unavailability of water may be used as an excuse for up to 30 years

Summary

Three Things You Should Remember

- ❑ Use of Surface Water for Irrigation is protected by Nebraska Statutes and the State Constitution.
- ❑ The Prior Appropriation System promotes orderly and equitable use of the citizen's surface water resource.
- ❑ A Perfected Appropriation for Surface Water Irrigation is a vested property right that adds value to appurtenant land, is protected by law and is vigorously defended by those that have such a water right.

Thank you

Please hold questions until
the end of the third section

Field Office Overview

- Field Office Responsibilities:
 - Surface Water Administration Program
 - Stream Gaging and Measurement Program
 - Dam Inspections – Safety of Dams Division
 - Field Investigations – Permits Division

Field Offices

Surface Water Administration

- **Priority System - First in Time - First in Right**
 - Allows senior to place 'call' for water against junior users
 - Juniors are prohibited from diverting for benefit of calling senior
- **Preference - Irrigation over Manufacturing**
 - Allows junior irrigators with higher preference to keep diverting
 - Must pay compensation to senior with lower preference
- **Storage Reservoirs**
 - Must pass inflow whenever water is required for irrigation
 - Reservoirs do not have to release water already stored

Field Offices

Surface Water Administration

- Administration Activities - Depending Upon:
 - Daily flow and demand for water
 - Relation between Priority, Preference, and Storage
 - Various other factors that affect stream flow
- Closing Notices:
 - Issued by Field Office based on water basins
 - Hundreds of diversions may be closed at anytime
 - Site visits to check compliance, flow, and demand
- Opening Notices: Issued as flow increases or demand is met

Field Offices Stream Gaging Program

- Approximately 85 year-round stream gages
 - Located on streams, rivers and lakes throughout the State
 - Monthly site visit and discharge measurement
- Approximately 100 seasonal stream gages
 - Located on canals, some lakes and streams
 - Measured weekly, monthly, seasonally
- Stage - Discharge Records
 - Annual review and check of each individual record

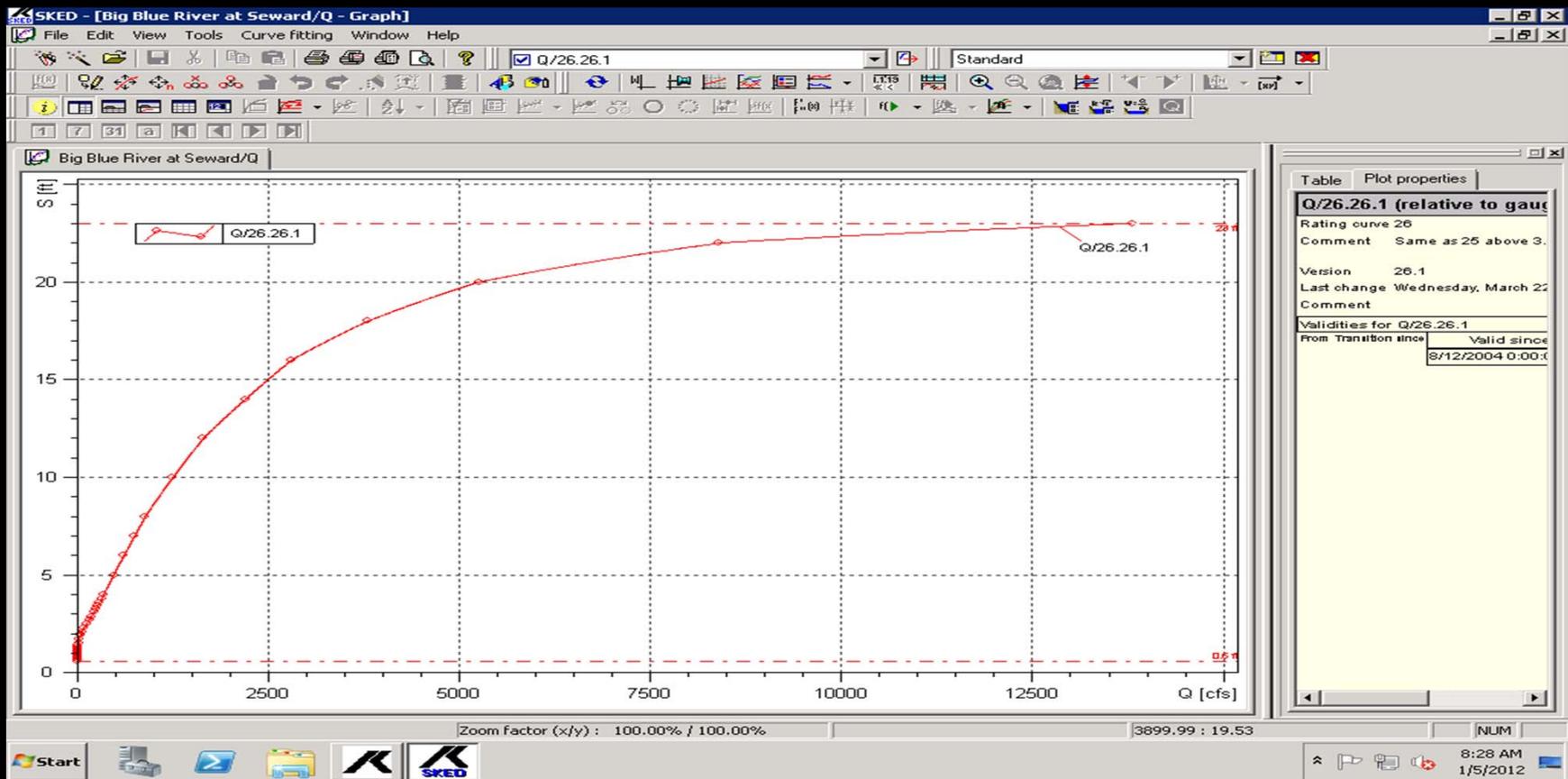
Field Offices Stream Gage Site



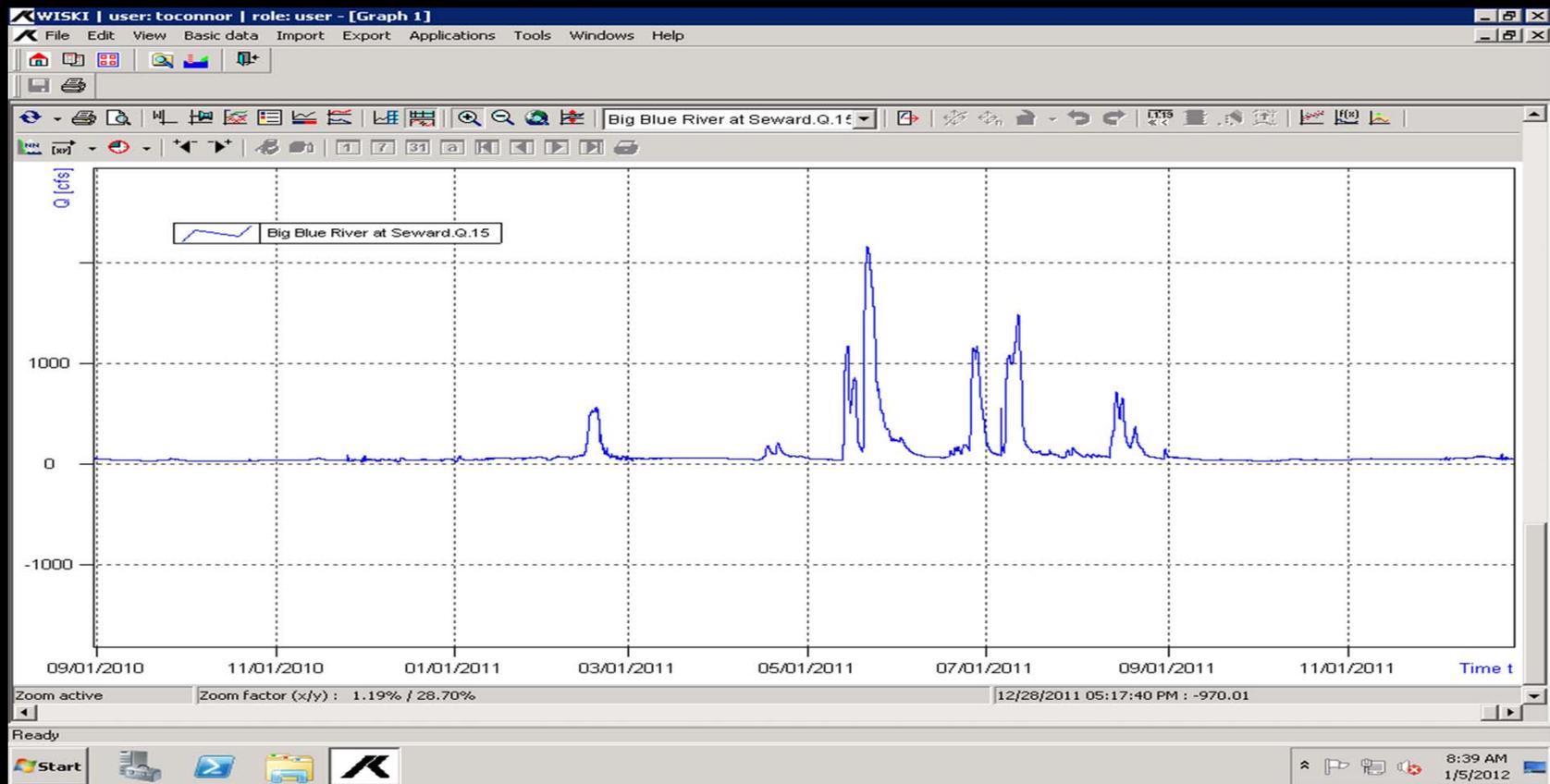
Field Offices Stream Measurement



Field Offices Rating Curve



Field Offices Stage Discharge Record

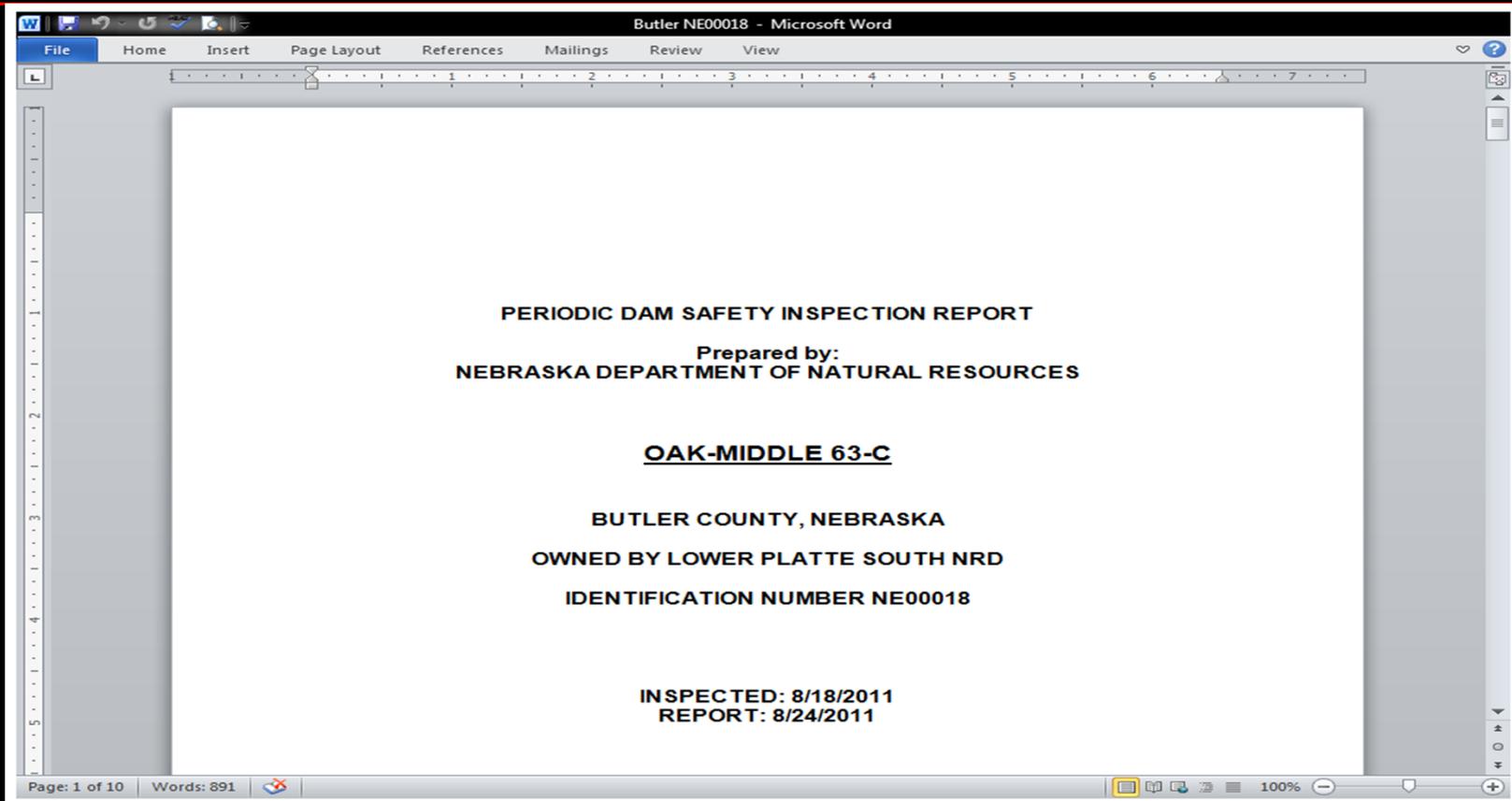


Field Offices Safety of Dams

- ❑ Support for Dam Safety Division
- ❑ Approximately 500 inspections annually
 - ❑ Typically small earthen dams
w/no downstream structures
 - ❑ Both NRD and private owners
 - ❑ Pre-notification letter
 - ❑ Safety Inspection Report



Field Offices Safety of Dams



Field Offices

Field Investigations

- In support of Permit Section:
 - Investigate non-use or non-compliance
 - Conducted throughout State
 - Based on basin, stream, or Department knowledge
 - Approximately 200 investigations pending for 2012
- Field Investigation Components:
 - Site visit
 - Interview with owner, tenant, or operator
 - Title search
 - Signed and Notarized Report

Thank you

Please hold questions until
the end of the third section

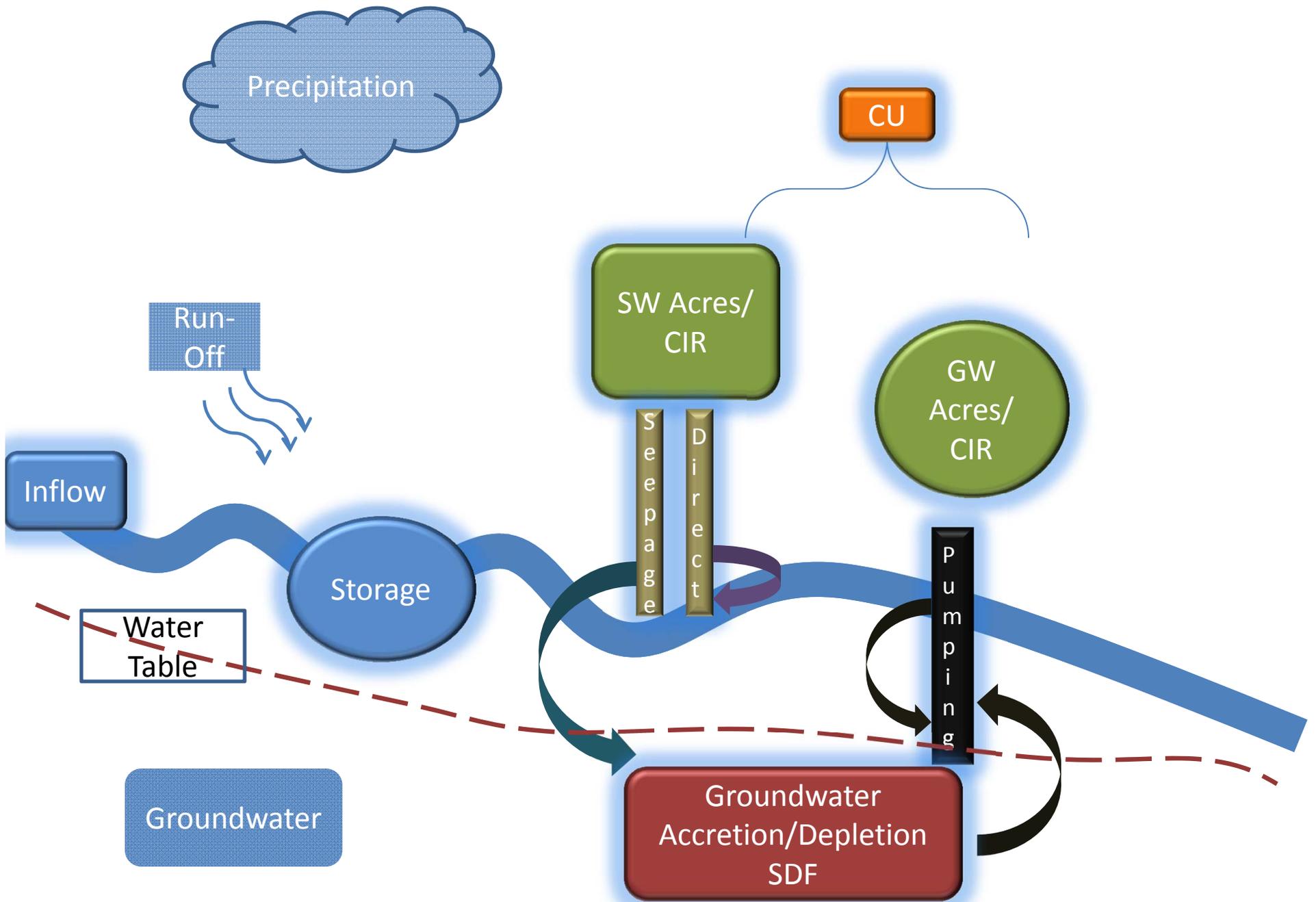
Conjunctive Water Management Overview

- What is CWM?
- Incidental CWM benefits
- Current & Future CWM
- CWM in management & planning

What is Conjunctive Management?

What is CWM?

- CWM is an adaptive process that utilizes the connection between surface and groundwater to maximize water use, while minimizing impacts to streamflow and groundwater levels in an effort to increase the overall water supply of a region and improve the reliability of that supply.



CWM

- Conjunctive management is typically accomplished by using or storing additional surface water when it is plentiful, and relying more heavily on groundwater during dry periods
- conjunctive management can change the timing and location of water so it can be used more efficiently.

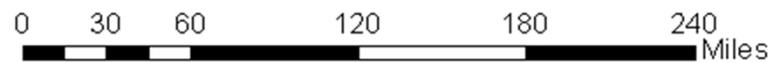
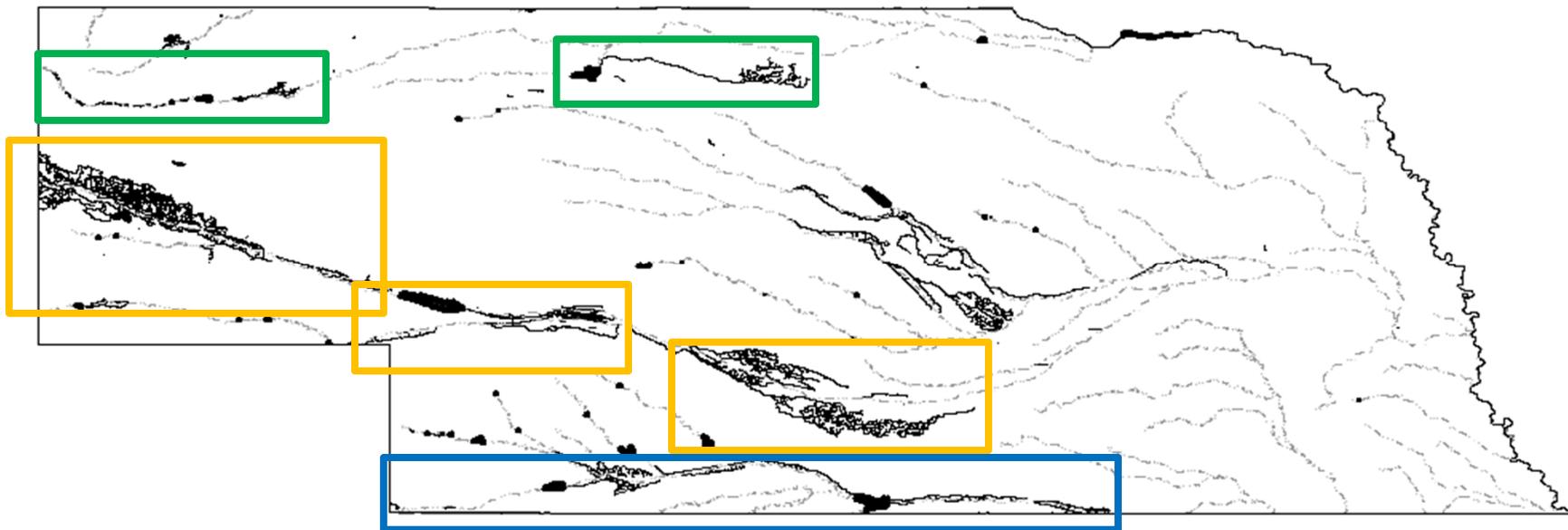
What are the benefits of CWM?

- Maximize the available water supplies
- Leverage existing infrastructure
- Utilize existing planning framework
- Minimize the need for regulatory actions

Incidental Conjunctive Water Management

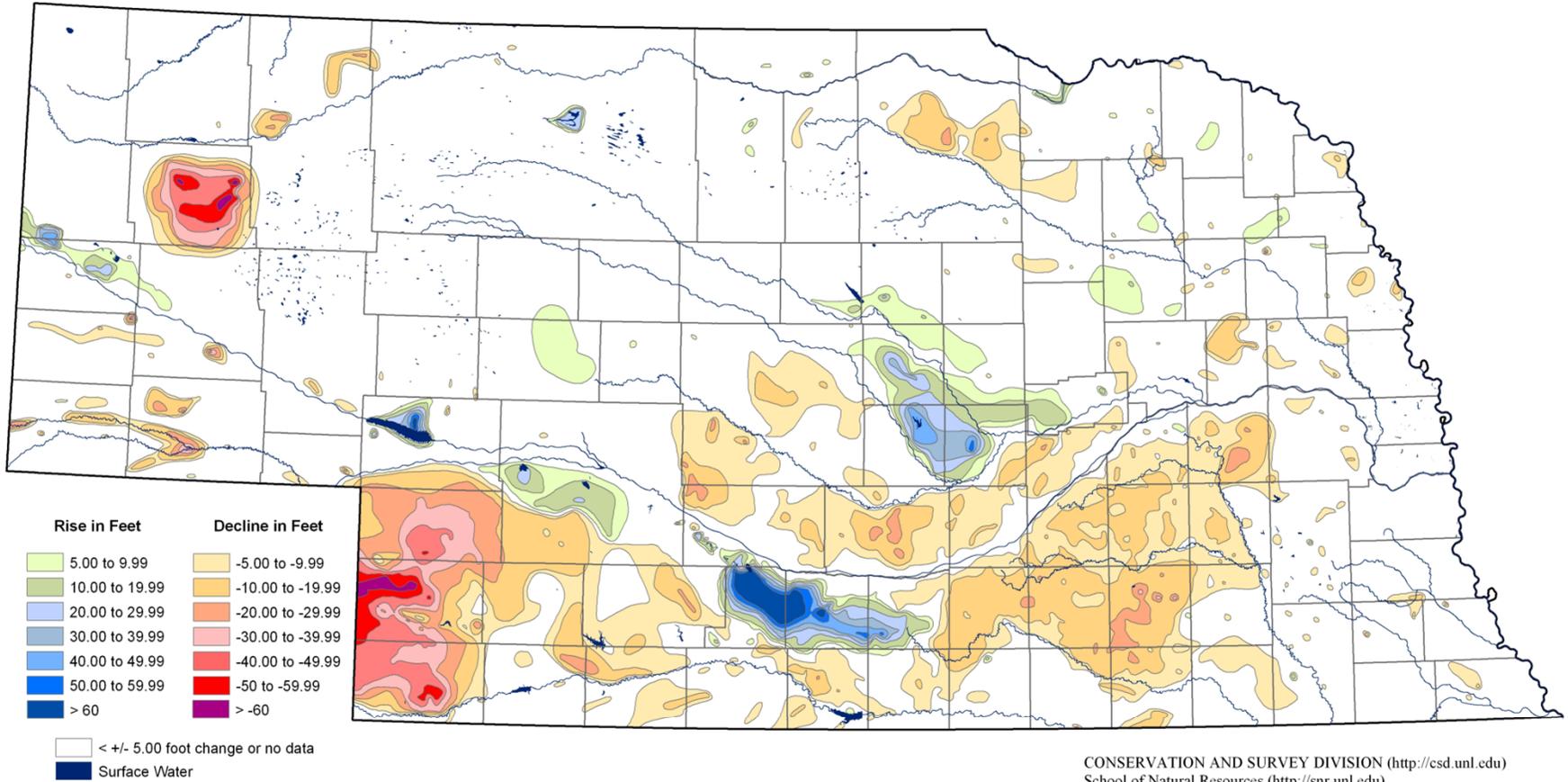


NEBRASKA IRRIGATION INFRASTRUCTURE



Hydrography from the National Hydrography Dataset (NHD)

Groundwater-level Changes in Nebraska - Predevelopment to Spring 2007



CONSERVATION AND SURVEY DIVISION (<http://csd.unl.edu>)
 School of Natural Resources (<http://snr.unl.edu>)
 Institute of Agriculture and Natural Resources/College of Arts and Sciences
 University of Nebraska-Lincoln

U.S. Geological Survey
 Water Resources Division - Nebraska District

Nebraska Natural Resources Districts

Central Nebraska Public Power and Irrigation District

Mark Burbach, Water Levels Coordinator, CSD

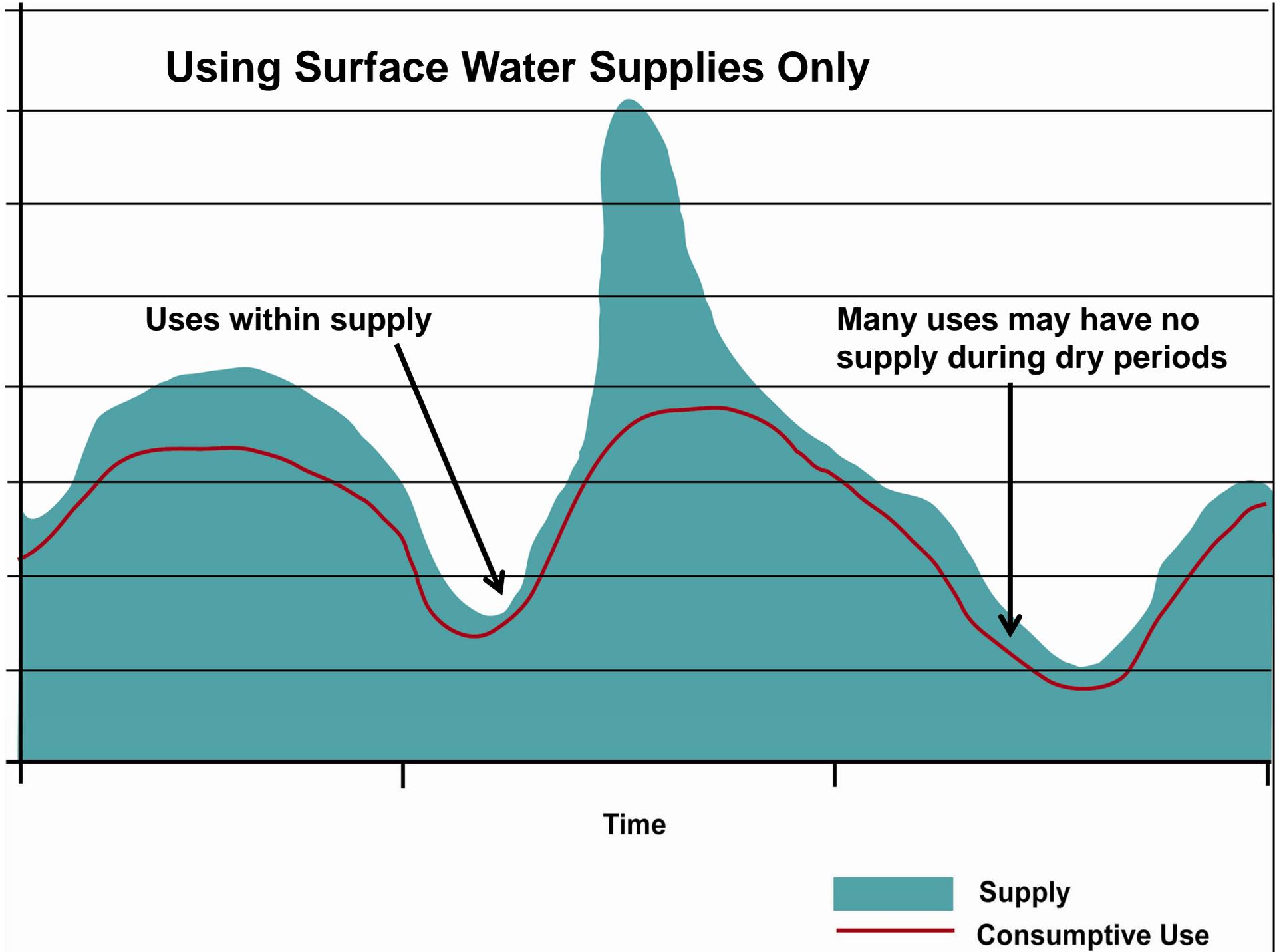
September 2007



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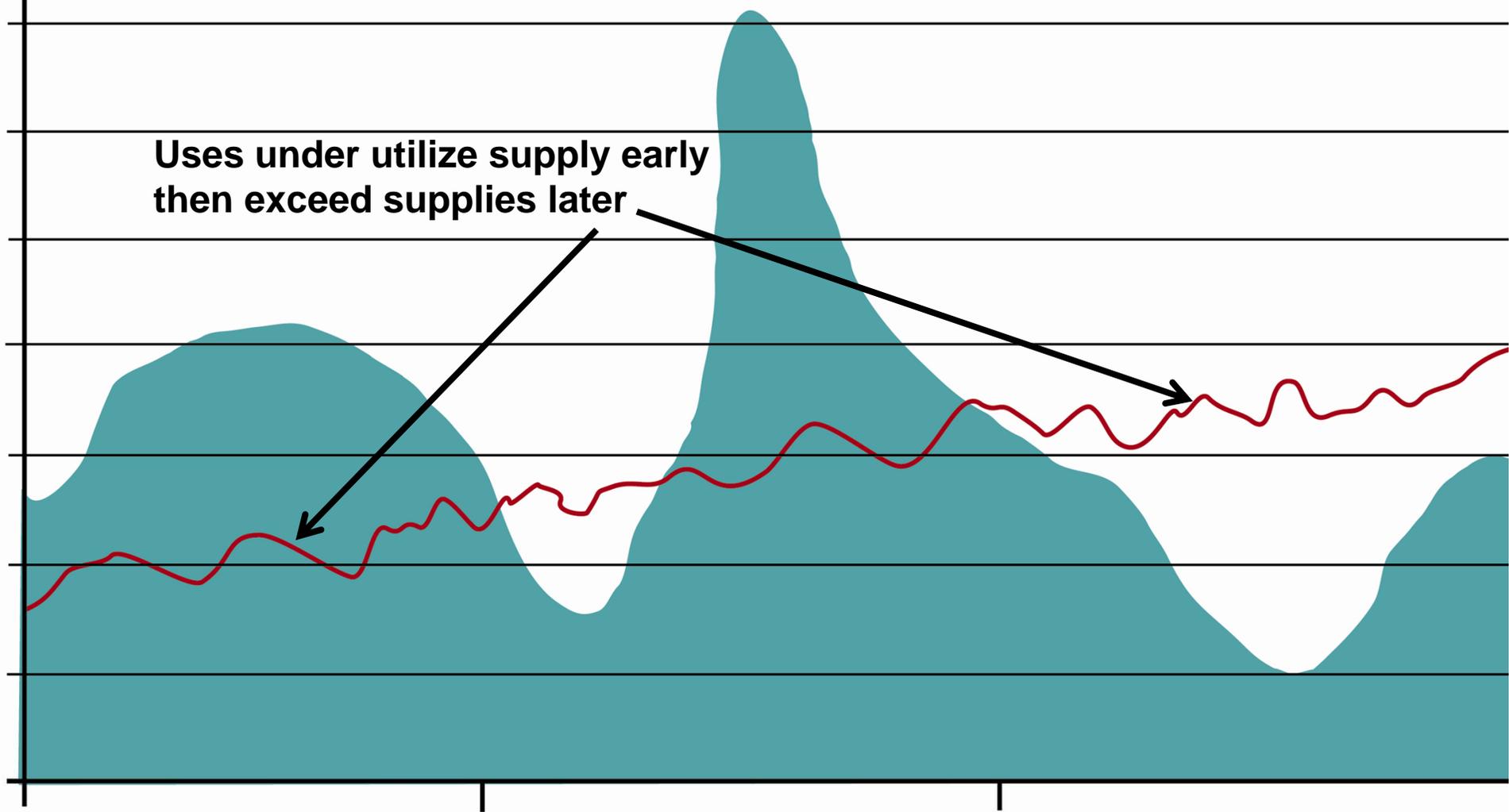
Future Conjunctive Water Management

Using Surface Water Supplies Only



Using Groundwater Supplies Only

Uses under utilize supply early then exceed supplies later

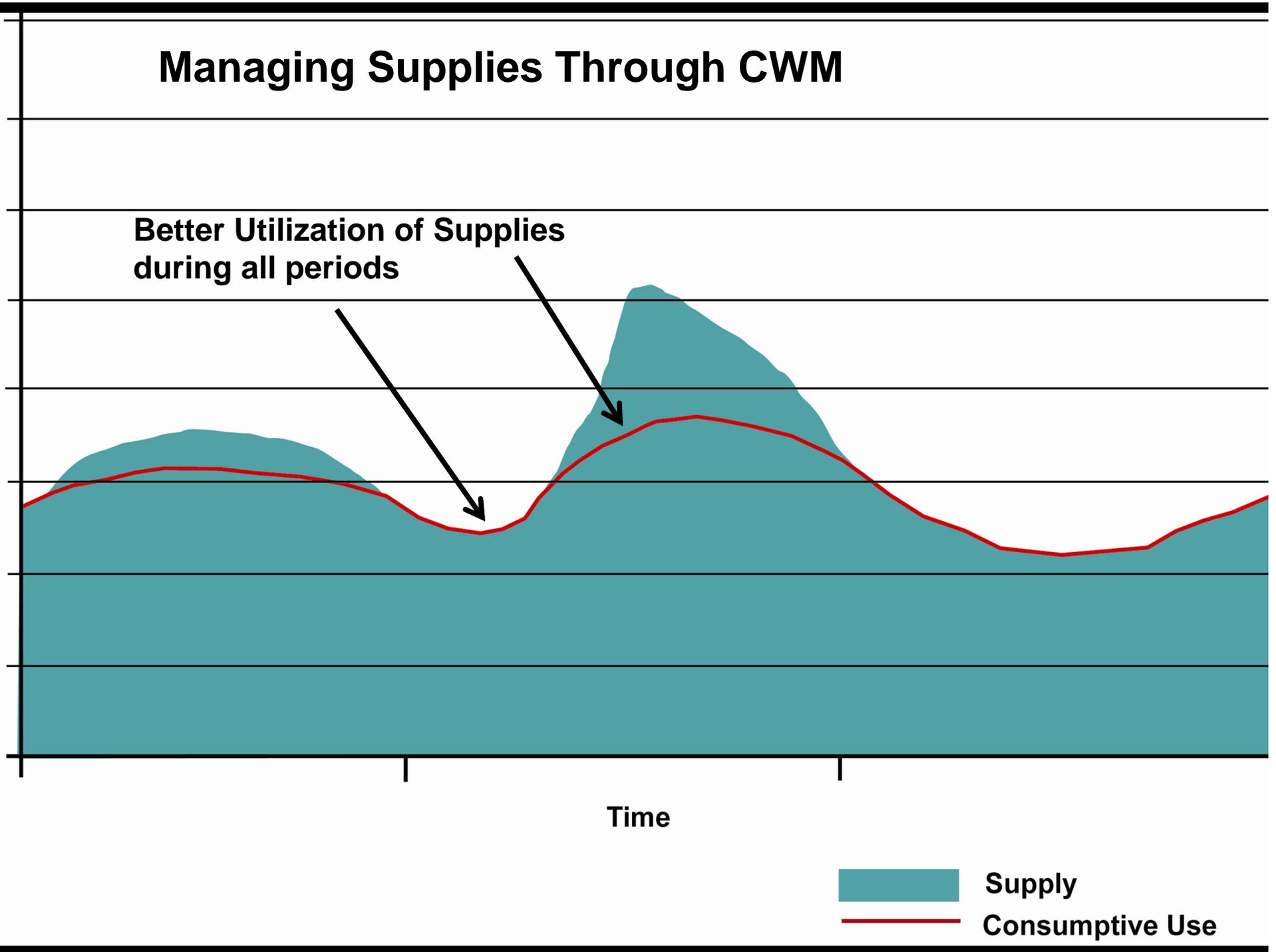


Time



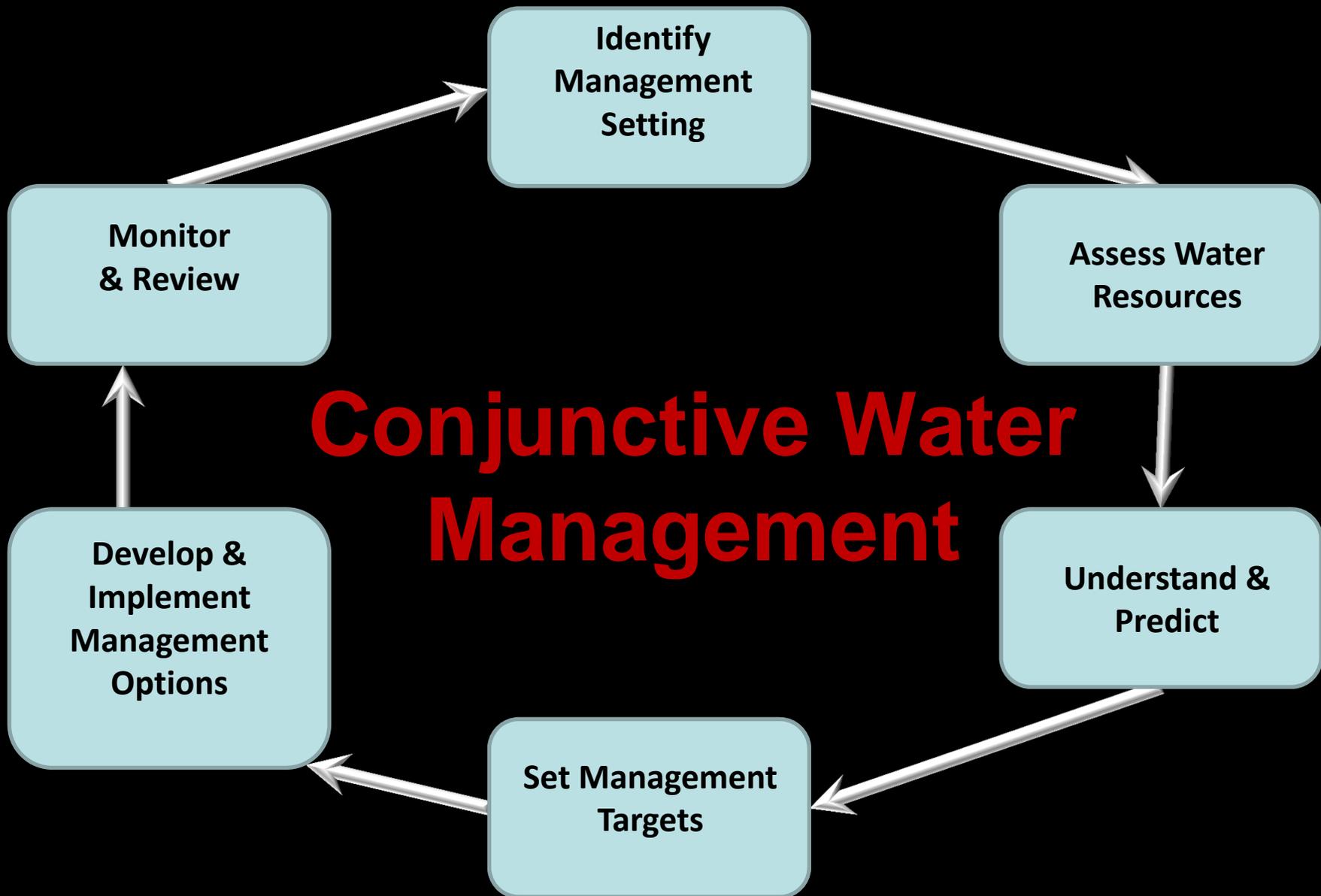
Managing Supplies Through CWM

Better Utilization of Supplies during all periods



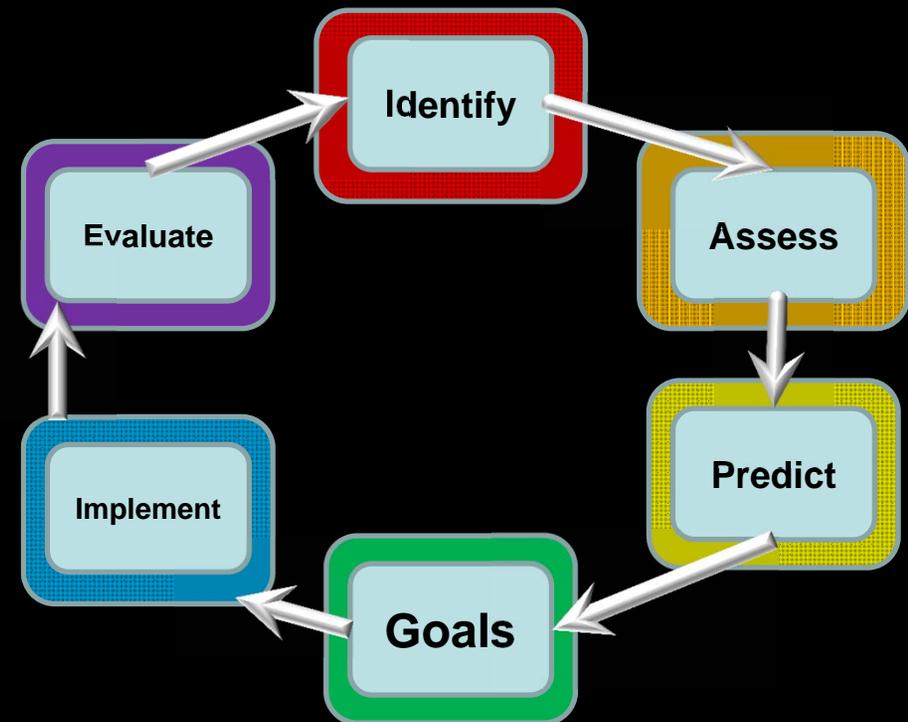
Conjunctive Water Management & Planning

Conjunctive Water Management



Steps to Successfully Implement CWM

- **Identify** the basin goals and concerns
- **Assess** the water supply and water demands
- Develop an **Understanding** of the basin to **Predict** system response to perturbations
- Set management **Goals**
- **Implement** management strategy
- **Monitoring Plans** to **Evaluate** project ability to meet goals





Thank
You

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