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## ABSTRACT

This policy document provides necessary information and direction to utility departments, consultants, planners, or wastewater managers for producing a Wastewater Utility Plan. Utility Plans replace the previous requirement under the Clean Water Act Section 201, known as 201 facility plans. Utility Plans used by the North Front Range Water Quality Planning Association (NFRWQPA or Association) aid agencies in obtaining financing and supporting the regional 208 Areawide Water Quality Management Plan (208 AWQMP). The 208 AWQMP consists of information produced from approved Utility Plans in accordance with sections 208 and 303(e) of the Act. Continuing water quality planning recommendations at a local level shall be based upon information provided in Utility Plans and documented within the 208 AWQMP. The 208 AWQMP draws on water quality assessments and Utility Plans to identify priority point and nonpoint water quality problems in a watershed or river basin. Addressing control measures for total maximum daily loads (TMDLs), including Management and Operating Agency responsibilities for managing those water quality impacts. Sections 205(j), 208, and 303 of the Act specify water quality planning requirements, which are requirements of Utility Plans and are used as supporting information to construct and update the 208 AWQMP periodically. Utility Plans are not a research project but rather a *group* project involving regional DMOAs collaborating on providing regional sewer service in a coordinated, agreed-upon effort.

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## IMPORTANT DEFINITIONS AND ACRONYMS

**Amendment** - An “amendment” refers to new information proposed to revise the region’s areawide water quality management plan.

**Comprehensive Plan** - A Comprehensive Plan is a document that guides an area's physical land use development. It is comprehensive in that it considers and coordinates the many interrelated aspects of development, such as land use, transportation, utilities and public facilities, parks, and open spaces.

**Design Capacity** – A domestic wastewater treatment work’s ability to receive a specific domestic wastewater flow and pollutant load while meeting the water quality planning targets. Regulation No. 22 further defines design capacity regarding treatment plants, On-site Wastewater Treatment Systems (OWTS), lift stations, and interceptors.

**Growth Management Areas (GMA)** – Also known as the Ultimate Planning Area (UPA). NFRWQPA intends that wastewater service areas identified in the 208 AWQMP be based on the urban growth boundary and any additional potential service area identified by approved local comprehensive plans, comprehensive long-range utility plans, or the area a wastewater provider intends to serve at ultimate development. GMAs are either equal in total land area to WUSAs or larger. Consequently, no GMA can be smaller than a WUSA. The portion of the urban growth boundary beyond the GMA is not expected to require urban services inside the 20-year planning period of the Utility Plan. However, this portion of the urban growth boundary beyond the GMA can be incorporated into the WUSA as needed through the plan amendment process.

**Infiltration** – Infiltration occurs when groundwater enters a sewer system through broken pipes, defective pipe joints, or illegal connections of foundation drains.

**Inflow** – Inflow is surface runoff that enters a sewer system through manhole covers, exposed broken pipe and defective pipe joints, cross-connections between storm sewers and sanitary sewers, and illegal connection of roof leaders, cellar drains, yard drains, or catch basins.

**Management Agency** – A Management Agency is any local, regional, or state agency designated for wastewater management responsibilities in a 208 AWQMP prepared under Section 208 of the Federal Act and certified by the Governor. Such designation shall be considered final only upon the agency's acceptance of its responsibilities, as outlined in the appropriate 208 Plan.

**NEPA Requirements** – The National Environmental Policy Act establishes requirements for Environmental Assessments and Environmental Impact Statements.

**Notice of Authorization** – The Water Quality Control Division’s authorized treatment standard requirements to produce treated wastewater for reclaimed use.

**Non-discharging Wastewater Treatment Works** – Some wastewater treatment works that do not discharge to surface or groundwater can be designated by the Water Quality Control Division as non-discharging and do not require a permit to operate.

**Planning Agency** –NFRWQPA is the designated planning agency for Larimer and Weld Counties.

**Primary Effluent Limits (PELs)** - The treatment entity must work with the Permits Section to develop PELs. The Permits Section’s guidance for PELs is on the Division’s web page at the following link: [https://www.colorado.gov/cdphe/WQ\\_Planning\\_Targets\\_and\\_PELs](https://www.colorado.gov/cdphe/WQ_Planning_Targets_and_PELs).

**Runoff Coefficient** – means the fraction of total rainfall or precipitation that will appear at a conveyance as runoff.

**Ultimate Planning Areas (UPA)** – Also known as Growth Management Areas (GMAs). NFRWQPA intends that the wastewater service area identified in the 208 AWQMP be based on the urban growth boundary and any additional potential service area identified by approved local comprehensive plans, comprehensive long-range utility plans, or the area a wastewater provider intends to serve at ultimate development. UPAs are either equal in total land area to WUSAs or larger. Consequently, no UPA can be smaller than a WUSA. The portion of the urban growth boundary beyond the UPA is not expected to require urban services inside the 20-year planning period of the Utility Plan. However, an agency can convert this portion of the UPA into a WUSA through the 208-plan amendment process as needed.

**Update** – An “update” refers to providing new and current information to revise an approved Utility Plan and includes an overall update of the information in the entire plan.

**Urban** – Land developed in residential, employment, service, and other uses in proximity to each other to afford convenience, access, and community. Residential densities in excess of one dwelling unit per acre and served by central water or sewer services are considered urban in nature. The exception occurs where dwellings are clustered to preserve open space in conjunction with an open space plan or in accordance with an approved Wastewater Utility Plan.

**Urban Area** – The land area developed at densities and in character with the definition of urban requires central water, sewer, and other infrastructure and service needs.

**Urban Growth Boundary** – Defined through an MOU between a county and a municipality as the land area planned to urbanize within a specific timeframe. Local governments anticipate this land area to need urban services and utilities before the 20-year planning horizon or other time horizons established by the MOU.

**Utility Plan** – A document that meets the minimum Utility Plan requirements and is accepted or conditionally accepted by NFRWQPA for approval.

**Wastewater Utility Service Area (WUSA)** – A WUSA is the Ultimate Planning Area’s sewer portion of the GMA. GMAs are either equal in total land area to WUSAs or larger. Consequently, no GMA can be smaller than a WUSA. The portion of the urban growth boundary beyond the GMA is not expected to require urban services inside the 20-year planning period of the Utility Plan. However, this portion of the urban growth boundary beyond the GMA can be incorporated into the WUSA as needed through the plan amendment process. A WUSA requires urban services through the 20-year planning horizon.

**Water Quality Planning Targets (WQPTs)** – The treatment entity must work with the Permits Section to develop WQPTs. The Permits Section’s guidance for WQPTs is on the Division’s web page at the following link: [https://www.colorado.gov/cdphe/WQ\\_Planning\\_Targets\\_and\\_PELs](https://www.colorado.gov/cdphe/WQ_Planning_Targets_and_PELs).

## *Acronyms Listing*

Association	North Front Range Water Quality Planning Association
BMPs	Best Management Practices
BATs	Best Available Technologies
BCT	Best Conventional Technology
CAFO	Concentrated Animal Feeding Operation(s)
CDPHE	Colorado Department of Public Health and Environment
CDPS	Colorado Discharge Permit System
CLEAN	Comprehensive, optimal, and Effective Abatement of Nutrients
CWA	Clean Water Act
DMOA	Designated Management or Operation Agency
EPA	Environmental Protection Agency
GIS	Geographic Information System
GMA	Growth Management Area
gpd	Gallons per Day
gpcd	Gallons per capita per day
IGA	Intergovernmental agreement
I&I	Infiltration and Inflow
M&E	Monitoring and Evaluation
mgd	Million gallons per day
mg/l	milligrams per liter
MOU	Memorandum of Understanding
MS4	Municipal separate storm sewer systems
NEPA	National Environmental Policy Act
NFRWQPA	North Front Range Water Quality Planning Association
NOVs	Notice of Violations
NPDES	National Pollutant Discharge Elimination System
SFEs	Single-Family Equivalents
SIC	Standard Industrial Classification
SSOs	Sanitary Sewer Overflows
SWQMP	Statewide Water Quality Management Plan
TENORM	Technology Enhanced Naturally Occurring Radioactive Material
TMDL	Total Maximum Daily Loads
TIN	Total Inorganic Nitrogen
WRAP	Watershed Rapid Assessment Program
WQCD	Water Quality Control Division
WUSA	Wastewater utility service area
WWTF	Wastewater treatment facility
WWTP	Wastewater treatment plant

## EXECUTIVE SUMMARY

This policy document provides the necessary information and direction to develop Wastewater Utility Plans. The document provides detailed technical information targeting utility departments, consultants, planners, or wastewater managers who must produce Wastewater Utility Plans. Utility Plans should be consistent with the policies contained herein. The concepts supplied within the utility plan must support regional 208 planning and the local DMOA's planning efforts.

The sole responsibility of utility plans is to promote and guide 208 regional planning rather than be a duplication of services pertaining to the WQCD permitting and the site application process. Authors of Utility Plans need to center the philosophy of Utility Plans around regional wastewater solutions for wastewater collection and treatment. Utility Plans must include options that support 208 regional solutions for collecting and treating wastewater and options that favor the local DMOA's planning efforts—understanding that 208 regional opportunities don't always prefer the local DMOA's planning efforts or requests. As 20-year horizon planning documents, Utility Plans may include Horizon efforts or action items for partnerships and consolidation opportunities outside the planning period for DMOAs to develop. A standard Utility Plan details a 20-year service area plan; a long-range service area plan is a comprehensive 50-year plan at build-out. A standard Utility Plan is to remedy a current wastewater collection, treatment, or water quality issue for a specific agency or river basin. Utility Plans document a coordinated and collaborative plan for providing current and future wastewater services to the region and solutions for water quality issues in the watershed, whether related to point or nonpoint sources.

The new Wastewater Utility Plans will meet multiple wastewater management documentation needs as detailed in this policy document. Utility Plans are critical in determining how wastewater service will be provided to urbanized portions of the region and special case locations with a wastewater treatment facility. The long-term goal is to have a Wastewater Utility Plan for all wastewater treatment systems, excluding Onsite Wastewater Systems receiving 2,000 gallons per day or less in the NFRWQPA region.

This policy identifies two types of wastewater management service areas: the 20-year Wastewater Utility Service Area (WUSA) and the Growth Management Area (GMA). Those entities developing Utility Plans should use these service area concepts. Each Wastewater Utility Plan should identify specific service areas and describe how these areas will be served in context with meeting all required water quality limits, including if some areas of a DMOA-approved WUSA would be better served by another DMOA optimizing regional collection systems utilizing gravity sewers over current or future lift stations. WUSA maps must illustrate the topography of the service area, identifying the portions to be served by gravity with slope-directional arrows and the regional areas to be served by lift stations with slope-directional arrows.

This technical policy document details who needs to complete a Utility Plan, the water quality management agency's role, timing schedules, and documentation requirements. Several logical steps in this process increase the effectiveness and efficiency of wastewater management planning within the NFRWQPA region.

Important definitions are provided early in the policy document since these definitions are critical in understanding the policy recommendations. The definitions are consistent with definitions contained in the site location application process. The Site Location and Design Approval Regulations for Domestic Wastewater Treatment Works (Regulation No. 22) should be referenced for additional definitions or clarification.

The portion of the urban growth boundary beyond the GMA is based on approved local long-range comprehensive plans the DMOA intends to serve at ultimate development. GMAs or UPAs can extend

significantly beyond the 20-year planning horizon of a DMOA-defined WUSA. However, a DMOA's WUSA cannot be larger than a DMOA's GMA or UPA. WUSAs can be modified through flexibility provisions of the 208 plan amendment process. DMOAs need to consider if some regions of a DMOA's urban growth boundary beyond the GMA or within the GMA and WUSA would be better served by another DMOA optimizing regional collection systems utilizing gravity sewers over current or future lift stations. WUSA maps illustrating the topography with slope directional arrows will help determine regional collection system options or recommendations. Regional DMOAs, through a coordinated and collaborative process, then agree on how the local areas will obtain wastewater service, land use, and zoning, and how to improve impaired water quality issues, whether those pollutants are point or nonpoint source related.

The definitions used in Regulation No. 22 define terms commonly used in utility plans. Utility Plans approved or conditionally approved by NFRWQPA will be used in the site location application process. As part of the Colorado Water Quality Act, site location approvals are required to construct or expand wastewater treatment works, lift stations, and interceptor lines. Although Utility Plans will need to meet the requirements of Regulation No. 22, DMOAs need to consider partnerships or consolidation when considering wastewater plant expansions or lift stations, presenting an economic feasibility analysis, the least costly option, and public support for choosing the final option. Concerning lift stations, WUSA maps illustrating the topography with slope directional arrows will help determine regional collection system options or recommendations.

Utility Plans document the wastewater management strategy for a wastewater treatment facility (greater than 2,000 gallons per day capacity) and the associated 208 regional WUSA. All Utility Plans should contain a defined set of minimum information (location, sizing, staging, service area, process system, effluent quality, nonpoint source contribution, impairment BMPs, and financial arrangements) and respond to appropriate state or federal requirements. All Utility Plans must include and examine options for partnerships and consolidation to optimize treatment and collection systems and watershed-impaired water quality solutions, including public support for the DMOAs projects and funding as presented within their Utility Plan. Agencies submitting Utility Plans must include all checklist topics to prepare a new or updated Utility Plan and address all items, including the requested Appendices.

The primary goal in establishing Wastewater Utility Plans is to provide reasonable, feasible, and economical wastewater service to areas designated for development within the NFRWQPA watersheds. Utility plans should consider the treatment system's impact on the water quality of the receiving water. The Utility Plan should include any actions taken and strategies for meeting all applicable, known future water quality, impairments, standards, and classifications. Quantify the potential impact the discharger may have on the river basin, stream segment, and other dischargers. This includes impacts the discharger may have on any listed impairments and TMDLs in place for the discharge segment or watershed. The Utility Plans are then used as the primary support documents to construct and periodically update the region's 208 AWQMP. As planning documents, the Association's 208 AWQMP, Utility Plans, and Site Applications all organically merge to protect, maintain, or restore the region's watershed water quality. Maintaining or restoring the region's watershed water quality originates from information provided in Utility Plans followed by recommendations in the 208 AWQMP to the division.

Wastewater Utility Plans help wastewater utilities plan for nonpoint source, collection system, and treatment system changes and improvements. Utility Plans provide regional and feasible economic solutions for wastewater treatment, collection, and coordinated efforts to improve water quality impairments. The Association has assembled this document to guide utilities in its region. NFRWQPA requires (January 1, 2008) all public wastewater treatment agencies submitting a site application, plan amendment request (including service area boundary change), or district formation and designation to have a current Utility Plan approved or conditionally approved by the membership before the request. Other agencies not falling into this category will include Utility Plan information with any of the above-listed requests. These plans



will simplify and ease the process by which utilities may seek Regulation No. 22-Site Location and Design Application approvals from the Colorado Department of Public Health and Environment's Water Quality Control Division and 208 plan amendments from NFRWQPA.

## I. INTRODUCTION

### A. Purpose of Policy Document

**Wastewater Utility Plans are designed to replace 201 facility plans.**

This policy document provides the necessary information and direction to utility departments, consultants, planners, or wastewater managers to produce a Wastewater Utility Plan. Utility Plans should be consistent with the policy contained in this document. as referenced in the 208 AWQMP, Wastewater Utility Plans replace 201 facility plans. The Wastewater Utility Plans will meet multiple wastewater management documentation needs, including, but not limited to, the following essential functions:

- Serve as the primary support document to amend the 208 AWQMP.
- The 208 AWQMP must be amended if any information proposed in the Utility Plan is new or updated.
- Projects approved in Utility Plans are adopted and endorsed within the Association's 208 AWQMP Endorsed Projects Construction Schedule. The 208 AWQMP Endorsed Projects Construction Schedule is available on the Association's website.
- Provide the necessary background and planning information the Water Quality Control Division needs in the discharge permitting process and Regulation No. 84.
- Provides Regional 20-year Planned Infrastructure for wastewater services.
- Optimizes regional wastewater treatment and collection, providing economic feasibility.
- 208 Planning involves a coordinated agreed effort among regional DMOAs of future land use and zoning and wastewater service provided regionally.
- 208 Planning involves a coordinated agreed effort among regional DMOAs to improve water quality, including mechanisms to restore water quality.
- Serve as the primary support document for Regulation No. 22.
- Serve as a support document for a state revolving loan (SRF) application.
- Serve as a support document for Process Design Reports.

Utility Plans are broader in scope than 201 facility plans, recognizing that the amount of detail will vary between Utility Plans depending on facility complexity and size. Some additional support documentation may be required by the Colorado Department of Public Health and Environment, Water Quality Control Division in the site approval, permitting, and loan processes.

Utility Plans are critical in determining how wastewater service will be provided to urbanized portions of the region. Including small locales requiring centralized services or specialized sites requiring a wastewater treatment plant with a capacity >2000 gallons/day (i.e., church camps, truck stops, RV parks, and restaurants).

As such, there are differing types of geographic Utility Plans. In geographic-based plans, the projected wastewater flows are a primary plan element to determine facility sizing and staging. However, Utility Plans can be of differing types, including:

1. Standard Utility Plan (20-year planning horizon)  
Considering remedies to current water quality or reliability issues for a specific facility or collection system. Under such a plan, the following is considered.
  - i. Collection System Rehabilitation/Replacement Plan
  - ii. Interceptor Rehabilitation/Replacement Plan
  - iii. Lift Station Rehabilitation/Replacement Plan
  - iv. Treatment facility expansions and modifications
  - v. Water Quality Impairment(s) Best Management Practices
  
2. Long Range Service Area Plan (50-year build-out comprehensive plan)  
Considering remedies to long-range regional issues related to water quality considering coordination and collaboration of DMOAs in the region. Under such a plan, the following is considered.
  - i. Regional Treatment Consolidation
  - ii. Regional Service Area Collection and Treatment Consolidation
  - iii. Regional Wastewater Process Consolidation Considerations
  - iv. Regional Water Quality Impairment(s) Best Management Practices

## **B. General Review and Recognition**

According to this policy, the Association must review and accept Wastewater Utility Plans associated with designated service areas. The Association policy may accept Utility Plans at any regularly scheduled meeting once the proposed plan meets the requirements within this policy document, i.e., the checklist.

*As presented within and in the checklist, all sections/chapters and subsections must be included in this order exactly and are required for a Utility Plan to be accepted for review and considered for approval to meet the Utility Plan Policy document's minimum requirements.*

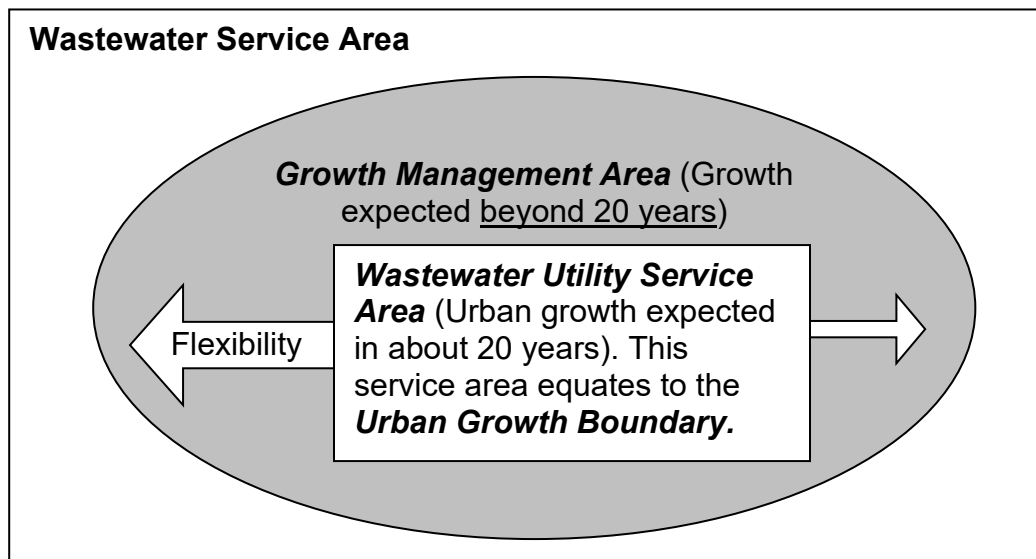
While the Division intends to use Utility Plans as source information in its various processes, Association acceptance does not preclude the Division from requiring additional documentation. This policy document contains the wastewater planning information needed to develop Utility Plans to be incorporated by reference into the 208 AWQMP.

Association Utility Plans are not required to be prepared and certified by a professional engineer. Agencies must submit certification, including signature block; the Utility Plan was written under the direct supervision of the DMOA or a registered professional engineer under the laws in the State of Colorado. It is the responsibility of either the submitting engineering firm or the DMOA to certify the Utility Plan was prepared according to the submitting requirements of this Utility Plan Policy Document and is accurate and true for submission. Certification affirms no known conflicts exist with the current or proposed WUSA, treatment facility, sanitary sewer (lift stations or interceptor sewers), stormwater drainage facilities, and utilities described in the Utility Plan. Project plans have been made available to submitting DMOA and

local DMOAs impacted by this Utility Plan. All known potential conflicts and comments by councils, commissioners, or administrators have been addressed during the preparation of this Utility Plan. Professional engineers licensed in Colorado may submit their professional engineering stamp and signature in place of a signature block. A professional’s stamp is evidence that the information provided within the Utility Plan has the highest regard for health and safety, protects the environment, and serves the interests of the general public. The engineer must be licensed to practice engineering in the State of Colorado by the Colorado Department of Regulatory Agencies (DORA) – Division of Registrations. The engineer shall seal and sign documents consistent with the requirement of the current version of 4 CCR 730-1 Architects, Professional Engineers, and Professional Land Surveyors Rules and Regulations. Certification ensures that the best interests of regional 208 Planning are preserved as professional engineers are required by licensure to recommend regional wastewater treatment options economically feasible for the general public and protect, maintain, or restore the region’s water quality. Submitting erroneous information or an incomplete submittal may delay the Utility Plan approval process.

### C. Geographic Context

The 208 Plan processes define how agencies can achieve wastewater service and water quality attainment within specific geographies in a regionally coordinated and collaborative manner. While a WUSA may extend into adjacent watersheds, the basic geographic unit for Wastewater Utility Planning will be the watershed. WUSA boundaries are typically defined by the area's topography, promoting gravity sewer lines to a centralized treatment facility. Additionally, regional water quality planning will be driven by the watershed approach.



**Figure 1 Service Area Relationships**

The 208 AWQMP recognizes two types of wastewater management service areas, WUSAs, and GMAs, provided in approved Utility Plans. As this policy document outlines, DMOAs developing Utility Plans should use the service area concepts of WUSAs and GMAs.

Each Wastewater Utility Plan should identify a specific service area and describe how this area will be served in context with meeting all required water quality limits and protecting, maintaining, or improving water quality. WUSAs should include the area requiring urban area services through the 20-year planning horizon. DMOAs need to consider if some regions of a DMOA’s urban growth boundary beyond the GMA or within the GMA and WUSA would be better served by another DMOA optimizing regional collection

systems utilizing gravity sewers over current or future lift stations. WUSA maps illustrating the topography with slope directional arrows will help determine regional collection system options or recommendations. DMOAs need to provide a map illustrating current and future WUSAs, GMAs, UPAs, and those surrounding areas where the DMOA intends to provide wastewater service in coordination and agreement with regional DMOAs. These maps illustrate current and future WUSAs, GMAs, UPAs, and those surrounding areas where the DMOA intends to provide wastewater service in coordination and agreement with regional DMOAs and become the 208-decision authority of the Association for Future Planning.

WUSAs, GMAs, and UPAs should be included in a locally approved comprehensive plan or similarly approved plan. As development patterns change, UPAs can be converted to 20-year GMA planning areas when the needs have been identified. Modifying the UPA, GMA, or the WUSA boundary is a local planning responsibility, although it requires a regional collaborative and coordinated DMOA effort.

#### **D. Who Needs to Complete Wastewater Utility Plans?**

The following agencies need to complete Wastewater Utility Plans if the following conditions, or any combination of them, exist.

- Wastewater treatment facilities, plants, or districts with a permitted discharge greater than 2,000 gallons per day, issued through the Colorado Discharge Permit System (CDPS).
- Wastewater treatment facilities, plants, or districts with an approved Notice of Authorization (NOA) to produce greater than 2,000 gallons per day of treated reuse effluent, as issued through the Water Quality Control Division.
- New or existing DMOAs with WUSAs greater than or equal to 35 acres.
- New or existing DMOAs proposing new treatment facilities, collection facilities, or districts with a permitted discharge greater than 2,000 gallons per day, issued through the Colorado Discharge Permit System (CDPS).
- DMOAs applying for site application approval through the WQCD that do not have an existing utility plan.
- DMOAs with a service area having lift station(s) feeding a separate agency's wastewater treatment facility.
- DMOAs consolidating with existing DMOAs modifying their current Utility Plan or WUSA.
- All division Permits, Notice of Authorizations, Site Applications, or Plan Amendments require a Utility Plan approved in the last ten (10) years.

For site location application approval, the proposed project must be documented within the approved Utility Plan and generally described in the 208 AWQMP for site location application consideration and approval. If not, generally, the order of operations is to 1) update the Utility Plan for approval, 2) amend the 208 AWQMP if needed, and 3) approve the site location application. These operations can run in parallel for efficiency, even though the approval timelines may differ due to the public comment period for 208 AWQMP amendments. Service areas for non-discharging reclaimed wastewater treatment works will be dealt with on a case-by-case basis.

## **E. What is the Role of Designated Management and Operating Agencies?**

The CWA calls for local jurisdictions and agencies to perform specific roles in protecting, maintaining, and improving water quality. Agencies with specific responsibilities in implementing the CWA are approved DMOAs by the Association and the governor. Several federal and state agencies have regulatory oversight in water quality management; local DMOAs recognized by the Association in the 208 AWQMP are responsible for fulfilling federal and state agencies' legal requirements. With primacy to administer the Federal Clean Water Act, Colorado has regulatory oversight of 208 Planning agencies and their responsibilities according to the federal and state CWA. The federal agency is the U.S. Environmental Protection Agency, and the state agency is the Colorado Department of Public Health and Environment, Water Quality Control Commission.

Depending on a DMOA's assigned role (Management or Operation) recognized by the 208 AWQMP, Counties, Municipalities, Special Districts, and representing administrative boards and councils must have the capability to:

- 1) Carry out their responsibilities according to the 208 AWQMP;
- 2) Have legal authority to provide wastewater service to its designated wastewater utility service area (WUSA);
- 3) Accept and utilize grants or other funds from any source for waste treatment management or nonpoint source control purposes to maintain, protect, or restore water quality in the Larimer/ Weld County region;
- 4) Continuously raise adequate revenues or necessary funding through sewer rates and tap fees, including rate increases as needed, having the capabilities to incur short and long-term indebtedness if necessary to implement its assigned portion of the 208 AWQMP to maintain, protect, or restore nonpoint source water quality;
- 5) Make every effort to provide Utility Plans, at least every ten years regarding regional planning to meet the Colorado Discharge Permit System current and future known for point or nonpoint water quality-based limits or regulations;
- 6) Cooperate with and assist NFRWQPA in the performance of its Utility Plan responsibilities adopted into the 208 AWQMP.
- 7) Construct wastewater facilities or facility upgrades and nonpoint source best management practices (BMPs) to maintain, protect, or restore regional water quality;
- 8) Refuse wastes from industry, municipality, or subdivision thereof, which does not maintain, protect, or restore water quality in the region, i.e., PFAS;
- 9) Effectively manage and operate collection systems, lift stations, and related wastewater treatment works and nonpoint source BMPs to maintain, protect, or restore regional water quality;
- 1) Implementing its portion of the 208 AWQMP requires each participating community to pay its proportionate share of related costs.

The DMOAs and their responsibilities established under this 208 AWQMP recognizes three types of DMOAs: 1) Counties, 2) Municipalities, and 3) Regional Water and Sewer Districts that collect and/or treat municipal wastewater, have the following responsibilities:

- 1) To protect water quality and public health by meeting the requirements of their Colorado Discharge Permit System (CDPS), Notice of Authorization (NOA), or National Pollutant Discharge Elimination System (NPDES) permits, and;
- 2) To protect water quality by managing stormwater runoff in compliance with the 208 AWQMP and applicable single and general permit(s);
- 3) A municipality that sells or gives its sanitary sewerage system to another public agency or political subdivision of the state, NFRWQPA will delist the original DMOA and transfer the DMOA designation to the new owner of the WUSA infrastructure;
- 4) County and municipal Health Department's responsibility is to protect water quality and public health by regulating the installation and maintenance of on-site wastewater treatment systems for household residences;
- 5) County and municipal Health Departments are responsible for providing Utility Plans and regional data concerning groundwater contamination of on-site wastewater treatment systems for household residences;
- 6) Counties are responsible for providing appropriate methods to evaluate water quality effects related to large lot developments served by on-site wastewater treatment systems within non-urban wastewater utility service areas;
- 7) Counties, municipalities, and townships are responsible for stormwater permits (MS4s) where required by CDPHE;
- 8) Counties are considered the nonpoint source control agency.

County Soil and Water Conservation District's responsibilities are:

- 1) To provide education and technical assistance to farmers in applying best agricultural management practices;
- 2) To prevent water pollution from sediment, nutrients, and pesticides;
- 2) Encourage fish and wildlife habitat consistent with productive agriculture practices.

Responsibilities of Associates and Industry members of the Association, although not recognized as DMOAs, are:

- 1) To protect water quality and public health by meeting the requirements of their Colorado Discharge Permit System (CDPS), Notice of Authorization (NOA), or National Pollutant Discharge Elimination System (NPDES) permits, and;

- 2) To protect water quality by managing stormwater runoff in compliance with the regional 208 AWQMP, local, and state applicable single and general permit(s);
- 3) Adequately fund their wastewater treatment facility ensuring the process can meet the Colorado Discharge Permit System current and future known water quality-based limits or regulations;
- 4) Adequately fund nonpoint source water quality best management practices to maintain, protect, or restore nonpoint source water quality.

DMOAs accept responsibility for implementing their part of the Clean Water Act Section 208 and protecting the Larimer/Weld County region's water quality. DMOA status is a prerequisite to participation in the Association to maintain and update the 208 AWQMP.

#### Relationship of 208 Planning to 208 Management

Management can be considered the doing phase of the 208 processes. In 208 planning, wastewater management policies are agreed upon by the membership DMOAs. Thus, planning is the designing and policy-setting elements, while management is the operational phase when policies are translated into action and implemented. Planning is a continuous process that exists in tandem with management. Planning is not a single act that concludes with completing a Utility Plan but instead guides all DMOAs involved in areawide water clean-up and protection continuously for all time. WQCC Policy 98-2 requires updates to 208 plans at regular intervals, including DMOA progress on their responsibilities within their individual Utility Plans and the overall 208 AWQMP. The Association has chosen to update its 208 AWQMP bi-annually.

DMOAs must provide a financially self-sustaining planning process, including Utility Plan updates every ten years and an independent planning process for wastewater treatment facilities, collection systems, and nonpoint source upgrades to meet current and known future water quality standards. Through DMOAs' Utility Plans, the Association develops and operates a continuing 208 AWQMP process for the region. The WQCC certification of the 208 AWQMP ensures the 208 AWQMP is consistent with the state's Colorado Water Plan (CWP) and applicable state basin plans. The Association has the duties of monitoring the endorsed 208 AWQMP projects approved through Utility Plans. The Association reports its findings to the DMOAs and the state using the 208 AWQMP bi-annually updates. The Association is not a watchdog of the DMOAs. The Association's primary responsibility is to report to the DMOAs to take corrective action to maintain, protect, or restore water quality. In a majority of cases, EPA expects that these responsibilities will lie with the designated planning agency.

#### Requirements that Management and Operation Agencies Must Meet

Areawide 208 planning is preparing for management and implementation of approved plans mandated by Congress, both in the actual language of Section 208 and other sections and in the spirit of the act. EPA has emphasized Congress' requirements to ensure Areawide 208 planning is carried out regionally. While Congress was quite specific that 208 plans should be implemented, Section 208 allows states and localities great flexibility in designing areawide water quality management systems. The EPA encourages 208 planning agencies to tailor an institutional network to its own water quality financial needs and organizational style.

A governor can designate one or more DMOAs to carry out the 208 Plan. There is considerable latitude within these agencies' requirements set by Section 208 to allow various metropolitan areas, small towns, and rural areas to devise an acceptable and implementable areawide water quality management plan. Most of the specific requirements for 208 DMOAs outlined relate to the financing, construction, operation, and maintenance of wastewater treatment works and nonpoint source pollution control. These require that DMOAs of an areawide water quality management plan as a whole must be able to:

- 1) Design, construct and operate waste treatment works;
- 2) Accept and use grants;
- 3) Raise revenues and assess wastewater treatment charges;
- 4) Incur short- and long-term indebtedness;
- 5) Require municipalities to pay a proportionate share of treatment costs;
- 6) Be able to refuse wastes from municipalities or subdivisions, which do not maintain, protect, or restore water quality;
- 7) Accept industrial wastes;
- 8) Set pretreatment standards;
- 9) Refuse industrial wastes that do not preserve, protect, or restore water quality, and
- 10) Be able to "manage effectively waste treatment works and related facilities." The legal, financial, and organizational capability of managing treatment works is broadly defined to include devices for storage, collection, treatment, recycling, reclamation of municipal sewage or industrial wastes, and nonpoint source pollution control.

In addition to these requirements related to treatment works, the law includes a general provision about the entire management program. This requirement both ensures flexibility in designing an areawide water quality system, and at the same time, demands innovation on the part of the 208 planning agency DMOAs, on the part of governors who must designate management agencies, and within EPA, which must approve those management agencies designation and 208 plans. This requirement states that DMOAs must be able to carry out their responsibilities of the approved 208 AWQMP. This general feature of the law goes beyond those plan elements relating to the treatment works to ensure that all management functions called for in the 208 AWQMP are handled effectively by some DMOAs. Section 208 of the CWA requires DMOAs to have the legal, financial, and institutional capability to carry out their 208 AWQMP responsibilities. Also, it requires that DMOAs organizations exist with enough political power to fund their duties within the approved 208 AWQMP.

As a result, the Association's primary objective is to create a membership of competent decision-making DMOAs, working together to achieve local, regional, and state water quality objectives at the lowest economic, social, political, and environmental cost. Areawide water quality management must provide a comprehensive and unified approach, achieving the state's water quality standards and those agreed upon by the region itself. The 208 AWQMP must address all water pollution sources (point and nonpoint), and if not controlled, taken into account. All DMOA functions must be authorized and funded, and, perhaps



the most essential ingredient, a coordinative mechanism provided, i.e., the 208 AWQMP. Congress's apparent aim in writing Section 208 is to overcome irrational fragmentation of responsibility by duplicating services and efforts unnecessarily, as governmental agencies sometimes work at cross purposes with one another. Coordination may be achieved procedurally through 208 Planning agencies when DMOAs agree to collaborate to maintain, protect, or restore water quality regionally. 208 Planning agencies strive to coordinate government agencies locally to prevent duplicated services and efforts regionally. Association members support that these agreed-upon activities in the 208 AWQMP produce a more effective and efficient public service through the collaboration and coordination of wastewater services to preserve, protect, or restore water quality regionally.

What functions will each 208 AWQMP perform, what powers are needed to complete the responsibilities, and does the management program as a whole perform all assignments required? In the 208 AWQMP, vital functions include:

- 1) Continuing 208 planning (including policy guidance to DMOAs, revising, updating the 208 AWQMP, evaluating the performance of DMOAs, and the relationship of water quality system with other systems in the region with state and federal governments).
- 2) Facilities planning, construction, operation, and maintenance of facilities to collect, intercept, treat, dispose of, reuse, and recycle wastes from municipalities and industries, including stormwater management, nonpoint source runoff controls, sludge disposal or use, regulation of existing and new pollution sources, including nonpoint sources, permits, water quality, and effluent standards, enforcement, and penalty application.
- 3) Financing the system, including construction, operation and maintenance, planning, administration, and overhead costs; setting user charge rates, tap fees, pricing policies, and rate and fee increases overtime.
- 4) Monitoring; ambient water quality monitoring (point and nonpoint), compliance monitoring, biological monitoring, and support for the general database.
- 5) Information systems – GIS, data gathering, storage, retrieval, analysis, dissemination, coordination, and enforcement of the Plan.

What questions will the 208 AWQMP satisfy concerning the DMOAs' responsibilities, and does the 208 AWQMP as a whole perform all assignments required? In the 208 AWQMP key questions answered include:

- 1) Who will require compliance with the 208 AWQMP?
- 2) How will compliance be achieved?
- 3) How will conflicts be resolved among management agencies within the same system, between management and planning functions, between the water quality management system and other systems in the same region?
- 4) Is primary control by local, state, or federal?

- 5) Should construction be split between two or more organizations along sub functional lines or centralized by the consolidation of WWTFs? For example, should sewer collection lines be built and operated locally, and interceptors and treatment plants be handled regionally?
- 6) Does the 208 AWQMP, as a whole, address all sources of pollution, including municipal point sources; stormwater nonpoint source runoff, including combined sewer overflows; nonpoint sources such as runoff from agriculture and concentrated animal feeding operations (CAFOs), and abandoned mines?
- 7) Is DMOAs financing adequate and assured for all needed actions, including operation, construction, overhead, and administrative costs?

#### Criteria for an Effective Water Quality Management Program

In deciding these 208 planning issues of where to place functions and responsibilities of DMOAs in the 208 AWQMP, judgments must first be made regarding criteria for “effective” membership networks.

Criteria for assigning practical DMOA functions might include:

- 1) Economic efficiency.
  - i. Can the DMOA achieve its water quality goal at the lowest economic cost?
  - ii. Does it achieve economies of scale?
- 2) Equity.
  - i. Are the benefits of clean water and clean-up costs reasonably and fairly distributed over the affected resident population?
  - ii. Are external costs, such as impacts on other environmental problems and effects on other services and social objectives, minimized?
  - iii. Are individuals’ rights protected?
- 3) Political accountability.
  - i. Are the DMOAs accessible to, accountable to, and controlled by their affected residents in proportion to their stake in the outcome of governmental decisions?
  - ii. For example, are the agencies not dominated by any single special interest group?
  - iii. Is broadly-based citizen participation encouraged and structured?
- 4) Administrative efficiency.
  - i. Has each DMOA been assigned adequate powers to carry out its 208 AWQMP responsibilities and duties?
  - ii. Is each DMOA able to pursue intergovernmental cooperation and reduce interlocal, and membership, functional conflict?
  - iii. Does each DMOA in the 208 AWQMP have adequate funding?
  - iv. Does each DMOA in the 208 AWQMP utilize fee rate increases to meet current and future known water quality regulations?
  - v. Is the DMOA structure sufficiently compatible with existing governmental institutions in the area to be a politically feasible instrument for performing assigned functions?

- vi. Are DMOAs functional with natural flexibility to consider all alternatives and trade-offs regarding the responsibilities and duties of the 208 AWQMP?

### Legal Basis

The Association has the authority to assume responsibility for 208 Planning monitoring, planning, coordination, and conflict resolution responsibilities assigned as the designated Section 208 Areawide Water Quality Management Planning Agency. The current versions of the following documents are incorporated into this 208 AWQMP by reference:

- 1) §208 of the Federal Water Pollution Control Act Amendments (P.L. 107-303) as amended by the Clean Water Acts through November 27, 2022)
- 2) Federal Register §35.1521 et seq. Vol. 44 No. 101, Wednesday, May 23, 1979, Rules and regulations
- 3) Articles of Association
- 4) Implementing Documents, Policies, Procedures, and Resolutions of the Association.

DMOAs are responsible for planning and financing facilities needed to carry out their role. All DMOAs are accountable for planning, collecting, and treating sewage systems involving multiple DMOAs. Typically, the DMOA is the County or municipality that owns and operates the WWTP, but not always. If a WUSA does not include a treatment plant, the DMOA is responsible for building, managing, and maintaining the collection sewers.

The DMOA's role includes:

- 1) Prepare Utility Plans to meet NFRWQPA and CDPHE requirements and water quality goals.
- 2) Serve as the lead applicant to arrange to finance and construct needed facility improvements to meet water quality-based limits and future water quality-based limits.
- 3) Join into service agreements with other political jurisdictions within the Association to operate and maintain wastewater facilities, collection sewers, nonpoint source control, and other DMOA activities.
- 4) Request 208 AWQMP amendments as necessary. NFRWQPA encourages neighboring governments to resolve service area conflicts at the local level through a collaborative process. A membership vote determines the matter's final decision when affected jurisdictions cannot resolve disputes regarding an amendment of the 208 AWQMP through a collaborative process.
- 5) CDPHE reviews the 208 AWQMP and makes necessary recommendations to achieve the region's water quality goals, and the WQCC approves the 208 AWQMP.
- 6) DMOAs cooperate with membership and in the 208 AWQMP and updating process.

The guiding principles used in delineating WUSAs in NFRWQPA 208 AWQMP are:

- 1) WUSAs must comply with the CWA requirements, notably:

- a) “Waste treatment management shall be on an Areawide basis.” [Clean Water Act §201(C)]
- b) “Identification of those areas which, due to urban-industrial concentrations or other factors have substantial water quality control problems.” [Clean Water Act §208(A)(1)]
- c) WUSAs should use sound planning practices to identify future needs for wastewater collection and treatment facilities.
- d) A WUSA boundary is a planning area for a single specific present or future DMOA’s designated wastewater plant(s) and a service area.
- e) A WUSA may include service areas for multiple treatment plants.
- f) WUSAs should be compact and contiguous concentrations of urban land uses without islands of one WUSA surrounding another.
- g) Remote service areas may be included in a WUSA when connected by force main and separated by regions that remain unurbanized.
- h) DMOAs are to design WUSAs to serve residents cost-effectively without duplication of service.
- i) WUSA boundaries should be consistent with adopted local land use and zoning plans.
- j) WUSA boundaries consider the topography selecting gravity sewer lines over lift stations.
- k) DMOAs should develop WUSA boundaries through cooperative dialogue among affected local jurisdictions. The Association encourages neighboring governments to resolve sewage service conflicts at the local level through a collaborative process. A membership vote will determine the matter’s final decision if affected local jurisdictions cannot resolve disputes regarding an amendment to the 208 AWQMP through a collaborative process.

#### Association Land-Use Management Agencies

A designated land-use management agency should have land-use authority to solve water quality problems associated with development, including nonpoint source urban runoff. The land-use management agency would be responsible for land-use decisions that could affect the quality of waters in their area of jurisdiction or the ability to provide adequate wastewater collection and treatment. The concerns for water quality related to on-site wastewater treatment systems (OWTS) use, the proliferation of small treatment plants, urban runoff, construction-caused erosion and sedimentation, and other activities can be approached through various forms of land use control.

Designated land-use management agencies typically include a general-purpose governmental agency with land-use control powers, such as a county, city, or town. These land-use management agencies are responsible for oversight of all water quality concerns related to land use within their jurisdiction, including point and non-point sources of pollution and activities which can degrade receiving waters. The management agency is responsible for all wastewater services in the foreseeable future within their WUSA.

#### **F. When Will Wastewater Utility Plans be Needed?**

Wastewater Utility Plans meeting the requirements outlined in this policy document should be prepared for all wastewater collection or treatment service providers (service providers). The development, review, and updating of Utility Plans should be completed for existing service providers as soon as possible and linked to the five-year permit renewal cycle. If there is no reason to change the treatment plant capacity, modify the service area, or upgrade the treatment works, a Utility Plan update may not be necessary. However, any significant changes to the treatment works or service area for these systems will require a Utility Plan update or amendment for review by the Association. Nevertheless, Utility Plans are to be updated every ten (10) years.

**The utility planning process will remain flexible for smaller wastewater providers. However, *sufficient planning information must be shown so there will not be negative water quality effects caused by any proposed new facility, facility expansion or change to service area.***

#### **G. Steps in Starting a Utility Plan**

Recommended steps in preparing a Wastewater Utility Plan are outlined below.

- a) Determine who needs to be involved in developing a Utility Plan and the general level of involvement in the process. They may include, but are not limited to, the following:
  - 1) NFRWQPA;
  - 2) Management and or Operating agency (mandatory);
  - 3) Local governments; councils, administrators, & mayors;
  - 4) County governments; Health & Planning Departments, & commissioners;
  - 5) Special districts;
  - 6) Technical support group(s) (e.g., consultant company, technical experts);
  - 7) Citizen groups, homeowner associations, and the general public;
  - 8) Industries, Restaurants (either through pretreatment or Grease programs within the service area);
  - 9) Watershed Associations;
  - 10) State agencies (e.g., Water Quality Control Division, State Engineer, Colorado Division of Wildlife);
  - 11) Federal agencies (e.g., U.S. Army Corp of Engineers, Colorado Parks and Wildlife);
  - 12) Stormwater Agencies, as applicable; and
  - 13) Ditch Companies with IGAs for Stormwater.
- b) Consider all possible consolidation and partnership possibilities with area DMOAs within a 5-mile radius.
- c) Document the public hearing process regarding the collection, treatment, nonpoint source, and consolidation options presented in the Utility Plan.

- d) Consider stream segment and river basin water quality impairment(s) and BMPs.
- e) DMOAs must consider and plan current and future WUSAs, GMAs, land use and zoning, and those surrounding areas where the DMOA intends to provide wastewater service in coordination and agreement with regional DMOAs.
- f) Collect all existing documentation and compare it to the checklist to determine missing elements or areas requiring revision for the new Utility Plan.
- g) Make initial contact with potential key informational contacts (Table 1) to:
  - 1) Obtain information needed in the Utility Plan process.
  - 2) Determine issues or problems that need to be addressed during the Utility Plan process.
- h) Develop a Utility Plan process schedule and begin.

**Table 1: Key contacts**

<b>Level</b>	<b>Contacts</b>	<b>Types of Information</b>
Planning Agency	Regional Planning Agency Staff	Guidance documents, maps of service areas, urban growth boundary, population and employment projections, wastewater flows, water quality assessments, wastewater management policies, monitoring information, committee contacts
Local Government	Planning and zoning department; local health department	Urban growth boundary; comprehensive plans; zoning; development plans; stormwater (MS4)
Management/ Operating Agency	General-purpose local, regional, district, municipality, or government agency as a management agency or a watershed association as the management agency	Wastewater strategy; existing permits; watershed plans; TMDLs, facility plans; existing infrastructure plans
State Agencies	Water Quality Control Division staff, including watershed coordinator, permit writer (existing permit), revolving loan staff (if potentially interested in state loan); State Engineer,	Regulations (i.e., site approval); effluent limits; permits; PELs, NOAs, TMDLs, water rights, loan requirements, air quality permit requirements, stormwater management plan requirements, biosolids
Federal Agencies	U.S. Army Corps of Engineers, Federal Fish and Wildlife Service, Environmental Protection Agency, and potentially others	Wetlands, floodplains, biosolids application, endangered species, National Environmental Protection Act (NEPA), Archeological Survey

## H. Wastewater Treatment Work Planning

Agencies can apply multiple existing or proposed wastewater treatment works within one Utility Plan. In some cases, joint Utility Plans between wastewater providers may be appropriate because of management requirements or to meet water quality goals for regional water quality impairments. A Wastewater Utility Plan document or set of documents provides necessary planning information for wastewater treatment works to:

**Utility Plans will provide information for watershed planning efforts.**

- 1) Meet the requirements of Regulation No. 22.
- 2) Provide sufficient information to amend the regional 208 AWQMP related to water quality assessments, watershed management, wastewater management, and nonpoint source pollution strategies.
- 3) Provide wastewater treatment works or plant information, discharge data, or other relevant documentation required to prepare total maximum daily loads, wasteload allocations, or other watershed planning efforts.
- 4) Provide wastewater treatment works or plant information to prepare discharge permits, Notice of Authorizations, or apply for loans.
- 5) Assure that boundaries between adjacent 20-year WUSAs identified by a wastewater provider do not overlap unless these overlap areas are incorporated into established memorandums of understanding (MOU) or intergovernmental agreements (IGAs).
- 6) DMOAs need to provide a map illustrating current and future WUSAs, GMAs, land use and zoning, and those surrounding areas where the DMOA intends to provide wastewater service in coordination and agreement with regional DMOAs.
- 7) By meeting local government regulations, the project developer shall mitigate the impacts on water quality and the aquatic environment caused by water projects or urban development resulting in nonpoint source pollution.
- 8) Assure that the DMOA responsibilities, as outlined in the 208 AWQMP, can be met by wastewater service providers.
- 9) Implemented DMOA control measures to meet TMDL wasteload allocations and loads incorporated into the permit discharge limits.
- 10) DMOAs must consider the stream segment and river basin's water quality, examine all listed impairments, point and nonpoint sources, and recommend coordinated regional BMPs.
- 11) Consideration for wastewater treatment planning to meet the division's 10-year Water Quality Roadmap requirements.
- 12) Fulfills regional 208 Planning requirements considering all possible partnerships and consolidation options with area DMOAs to optimize service areas collection and treatment facilities, including water quality benefits assessing water quality impairments.

Collaborative regional planning, facilitation, and review concerning partnerships and collaboration ensure that present and future wastewater needs are met economically and focused on water quality protection, providing economical solutions to the general public.

## **I. Wastewater Utility Plan Documents**

All **sections/chapters and subsections must be included in this order exactly** and are required for a Utility Plan to be accepted for review and considered for approval to meet the Utility Plan Policy Document's minimum requirements. The checklist found at the end of this policy can ensure the Utility Plan meets this requirement. Once approved, only those updated, amended, or otherwise changed sections must be submitted for approval. The Association will maintain approved Utility Plans and any supplemental documents in the office and online. Utility Plans should be updated periodically by the DMOA as specified within. Utility Plans older than ten (10) years warrant a complete replacement plan submitted to the most recent Utility Plan Policy document requirements. The fourth (4) update will warrant submitting a whole replacement plan. Complete replacement plans submitted for consideration must follow the most recent Utility Plan Policy document, requirements, and outline checklist format. Use the Utility Plan Format Checklist for updates to address all required elements. Missing components will be required to be updated.

## **J. Submittal and Acceptance Procedure**

The Association requests that all proposed Utility Plans be submitted in an electronic Adobe Acrobat (.pdf) format. The Association then will distribute the required number of copies electronically, depending on the project proposed. The following procedure will apply to the Association review and acceptance of Utility Plans and Utility Plan updates. From the date of submittal, please allow 6-8 weeks for a review period by the Association.

- The submittal must follow the organization of the Utility Plan Policy Document and address and include all sections.
- The Association Manager and review committee may reject any submittal if the Utility Plan does not follow the Utility Plan Policy outline and checklist.
- Submit the Utility Plan to the Association electronically (Adobe Acrobat).
- Association staff will review the Utility Plan to ensure it meets the Utility Plan Policy Document's minimum requirements - allow 30 days.
- Association staff notifies the membership that a Utility Plan has been submitted for review and consideration by the membership.
- Association staff distributes review copies to the Utility Plan review committee, referral agencies, and the Local Agency Utility Plan Acceptance Form (Table 2) as required. It is generally best to have referral agency comments and signatures before considering the Utility Plan at an association meeting.
- A meeting is scheduled within 60 days of the distribution to review interim or final Utility Plan comments with the review committee, the submitter of the Utility Plan, and other interested agencies.



- The review committee will provide any appropriate comments, edits, or suggestions to the submitting agency for correction at the review meeting.
  - For Utility Plan updates, the review committee has the flexibility to determine whether a meeting is necessary.
- The submitting agency will have time to make corrections or clarify statements and issue a final draft to be considered at the next available Association meeting.
- The Association must receive the final draft **two-weeks** before the next available Association meeting for consideration.
- Based on the review committee and referral agencies' comments, the Association will state whether the Utility Plan meets the minimum requirements or not, here within, at the next available Association meeting. This includes referral agency comments from the Local Agency Utility Plan Acceptance Form (Table 2).
- Membership may acknowledge approval by a passed vote or refer to the submitting DMOA for corrections and resubmittal. The appropriate sign-off forms (Table 2) will be filled out following the meeting based on the association meeting action.
- Once the membership approves the Utility Plan, the agency must submit a final electronic copy to be kept on file at the Association office and online.

#### **K. Documentation Sign-off**

Utility Plans and any subsequent updates will have an associated sign-off form. The site approval process identifies a list of referral agencies that are given an opportunity to make a recommendation on an application for the construction of new, modified, or expanded domestic wastewater treatment plants. Those referral agencies identified in the site approval process should sign-off on all Utility Plans reviewed and accepted by the Association. These referral agencies will also be able to submit comments with their signature. This sign-off form is titled *Local Agency Utility Plan Acceptance or Conditional Acceptance Form* (Table 2). Original referral agency sign-off forms will be kept on file at the Association office and online. Please allow 6-8 weeks for the referral agencies to review the Utility Plan and return the Local Agency Utility Plan Acceptance or Conditional Acceptance Form.

## II. RECOMMENDED UTILITY PLAN ACCEPTANCE POLICY.

### A. General Criteria

**Only approved Utility Plans will be referenced in the 208 AWQMP.**

The Association only references approved Utility Plans in the 208 AWQMP. Approved Utility Plans represent the preferred wastewater management strategy for the WUSA, GMA, and water quality impairments. Approved Utility Plans will be used in the site approval process, in 208 AWQMP amendments, and to meet other appropriate regulatory requirements.

Utility Plans can be submitted to the Association at any time. Utility Plans submitted to the Association should address locally adopted watershed objectives and wastewater management strategies. The Utility Plan must follow the format and organization of the Utility Plan Policy Document and address and include all sections.

*As presented within and in the checklist, all sections/chapters and subsections must be included in this order exactly and are required for a Utility Plan to be accepted for review and considered for approval to meet the Utility Plan Policy document's minimum requirements.*

The Association will take formal action on the presented documents following a completed review by the Utility Plan Review Committee. Please allow 6-8 weeks from the submittal date for the Utility Plan Review Committee to complete their assessment. Membership can make one of the following three recommendations related to Utility Plan acceptance:

- Approve;
- Conditionally accept with additional actions, corrections, analyses, or information required for approval on a case-by-case basis.
- Denial.

The Association Utility Plan Review Committee will be established from members and alternates annually, confirmed by the Association action. Review committee members' alternate reviews as needed. The committee will review the Utility Plan for consistency with the adopted policy and minimum requirements. The review committee will summarize findings for membership at a regularly scheduled meeting, stating whether the Utility Plan meets the minimum requirements. The Association will distribute electronic copies of the Utility Plan or set of Utility Plans to those jurisdictions required to sign the Wastewater Utility Plan Acceptance Form (Table 2). The Wastewater Utility Plan Acceptance Forms are on file at the Association office and online. These signature referral entities may also submit comments, which will be considered by the Review Committee and by the membership.

### B. Update Criteria

Approved Utility Plans require periodic updates to provide current 208 agency planning information and unforeseen projects requiring site applications.

#### (a) Updates:

A Utility Plan update is a revision to a previously approved plan and includes an overall update of the entire plan's information. Utility Plan information, data, dates, financials, etc., should be updated throughout the report to match the updated information or sections within the plan. Hence, the entire report is cohesive and in agreement. In some cases, updates to Utility Plans will also require an amendment to the 208 AWQMP so that the new information provided in the Utility Plan agrees with the 208 AWQMP. Updates shall provide

comprehensive current planning information throughout the document. Obtaining new information for any of the main sections within a Utility Plan may be a reason to perform an update. Including the following topics:

- ❖ descriptions of treatment facilities and collection systems along with plans for modifications.
- ❖ a modified discharge permit or NOA standards information, including permitted flow and load.
- ❖ revise 20-year population information.
  - Requires a 208 AWQMP amendment.
- ❖ revise 20-year financial information.
- ❖ modification to the current WUSA descriptions.
  - Requires a 208 AWQMP amendment.
- ❖ identification of new projects requiring site application approvals.
- ❖ a change in the design capacity of a planned WWTP expansion.
  - Requires a 208 AWQMP amendment.
- ❖ a change in the timing of a scheduled WWTP expansion.
- ❖ the addition of a lift station to accommodate development short term.
- ❖ Update Regional Water Quality Impairment(s) Best Management Practices

Utility Plans older than ten (10) years warrant a complete replacement plan submitted to the most recent Utility Plan Policy Document requirements and must follow the outline checklist format. The fourth (4) update will warrant submitting a whole replacement plan. Complete replacement plans submitted for consideration must follow the most recent Utility Plan Policy document, requirements, and outline checklist format.

Use the Utility Plan Format Checklist for updates to address all required elements. Missing components will be required to be updated.

The update should be submitted as a “track changes” document showing what information is being replaced in the currently approved plan for minor changes—redlined or ~~strikethrough font~~ for omitting information and **red font** for identifying and providing new information. For more substantial changes, replacement sections/chapters can be provided. This means whole sections/chapters can be discarded (pulled) and replaced with a whole new section/chapter. Redlined or strikethrough fonts can omit entire sections, and red fonts are used throughout a new section to provide new material. For these changes, it helps to include notes or clarifying statements at the beginning of each section explaining what, why, when, and how this updated section will fit into the existing plan. Sometimes, the number and amount of changes will be significant enough to warrant a complete replacement document. The submitting agencies should include a cover letter outlining the submittal format, what information has been modified, and a brief justification for updating the Utility Plan.

*Changes and updates of new material are made within the document and not provided with the cover letter.*

The Executive Summary section of the plan should be modified to provide information on when the original Utility Plan was approved. All updates' timing and scope, including the proposed project, must be listed. Update details should not contradict other information within or throughout the plan. It is expected that supporting detail be the most relevant (< 5 years) throughout the report and in agreement with the said update detail.

Once the Association approves the update, a final copy of the revised Utility Plan and appendices must be submitted. This final copy shall be a cohesive document that includes the updated information (and appendices) and any portions of the plan and appendices that are still relevant. All approved Utility Plans can be found on the Association website.

### **C. Renewal Frequency**

It is recommended that all entities review their plans every five years and determine whether an update or a complete replacement is needed. Any significant revision and re-adoption of a local comprehensive (Master) plan or other local long-range wastewater management (Master) plan may also require reviewing and re-accepting the associated Wastewater Utility Plan. DMOAs should review regional water quality impairment(s) and associated BMPs, as impairment listings are updated by the WQCC every three years. Management agencies shall notify the Association of any re-adoption or significant update of their local comprehensive plan(s). Utility Plans older than ten (10) years warrant a complete replacement plan submitted to the most recent Utility Plan Policy document requirements and must follow the outline checklist format. The fourth (4) update will warrant a complete replacement plan submitted.

**Table 2: Local Agency Utility Plan Acceptance or Conditional Acceptance Form**

*NOTE: NFRWQPA will route and acquire the required signatures, not the applicant.*

1. Agency:			
Role	Date	Typed Name	Signature
Management Agency			
Recommended Approval?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Conditional Approval w/comments: <input type="checkbox"/>
Comments:			
2. Agency:			
Role	Date	Typed Name	Signature
Management Agency			
Recommended Approval?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Conditional Approval w/comments: <input type="checkbox"/>
Comments:			
3. Agency:			
Role	Date	Typed Name	Signature
Local Health Authority			
Recommended Approval?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Conditional Approval w/comments: <input type="checkbox"/>
Comments:			
4. Agency:			
Role	Date	Typed Name	Signature
Other State or Federal Agencies			
Recommended Approval?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Conditional Approval w/comments: <input type="checkbox"/>
Comments:			
5. Agency: North Front Range Water Quality Planning Association			
NOTE: NFRWQPA signature is obtained, including the Association's recommendation, after the public hearing decision of the Utility Plan.			
Role	Date	Typed Name	Signature
208 Planning Association			
Recommended Approval?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Conditional Approval w/comments: <input type="checkbox"/>
Comments:			

Additional Comments may be added on the back of the form.

1. Agency:

Comments:

2. Agency:

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### III. WASTEWATER UTILITY SERVICE AREA CONCEPTS

#### A. Wastewater Utility Service Areas

**Wastewater service areas are defined as greater than or equal to 35 acres or having a plant design capacity of >2,000 gallons/day.**

The Association defines domestic wastewater treatment facilities as having a design capacity to receive greater than 2,000 gallons per day. WUSAs are greater than or equal to 35 acres or have a plant design or lift station capacity receiving greater than 2,000 gallons per day. Utility Plans for wastewater providers serving WUSAs are expected to meet the requirements provided within this policy document. The 208 AWQMP will continue to establish the boundaries between WUSAs to ensure no overlaps of service areas. The Association cannot accept utility Plans that include overlapping service areas unless an

Intergovernmental Agreement (IGA) or Memorandum of Understanding (MOU) is in place between the entities establishing the service process in the overlapping area. Overlapping service area issues must be resolved through local planning processes before being submitted to the Association for acceptance. The Association will determine minimum requirements on a case-by-case basis.

**The shape or contiguity of a major wastewater utility service area is defined in agreement with regional DMOAs through a collaborative and coordinated planning processes.**

Wastewater service providers serving WUSAs should have an active Colorado Discharge Permit or Notice of Authorization to produce treated wastewater for reuse. The Association will not include wastewater service providers with terminated wastewater facilities, permits, or Notice of Authorizations in the 208 AWQMP, and they will not be required to complete Utility Plans. The Association will deal with service areas for terminated or non-discharging wastewater treatment works on a case-by-case basis. However, any facility being re-issued a discharge permit by the Water Quality Control Division will be treated as a new facility and requested to complete a Utility Plan before being incorporated into the 208 AWQMP, including newly found un-permitted facilities or proposed new facilities.

The facility capacity and service area are based only on the area intended to be served and the current facility sizing as approved in a site application or discharge permit.

Typically, a WUSA is determined by the area's topography utilizing gravity to convey collection system flows to a centralized WWTF. WUSA boundaries are also commonly defined by municipality boundaries or major highways and interstates. WUSA boundaries that predominately utilize gravity sewer systems are the most efficient and typically the lowest cost options. The shape or contiguity of a major wastewater utility service area is defined in agreement with regional DMOAs through a collaborative and coordinated planning process.

**A planning area amendment must precede an expansion of a utility service area, if the proposed utility service area extends beyond the accepted WUSA planning area boundary.**

The WUSA is the portion of the GMA requiring urban service through the 20-year planning horizon. This area cannot be larger than the identified GMA. The primary goal in establishing WUSAs and Wastewater Utility Plans is to provide reasonable, feasible, and economical wastewater service to an area designated for urban development. Utility Plans should consider the water quality impact the treatment facility, collection system,

and service area urban development will have on receiving waters. Providing control measures for meeting all applicable and known future, water quality standards, water quality impairments, TMDLs, and EPA use

classifications while minimizing the potential impact agencies may have on one another and the watershed holistically. Control measures for meeting applicable and known future water quality standards include examining the stream segments' water quality impairments to protect, maintain, or restore the water quality, whether the pollutant sources are point or nonpoint.

A WUSA is typically defined as urbanized areas requiring services within a planning period of approximately 20 years. These areas are established regionally to encourage contiguous and orderly utility infrastructure development. These areas may result from municipal boundaries, legal boundaries of sanitation districts, hydrologic boundaries, or major highways and interstates. The boundaries should be consistent with the local comprehensive plans and the adopted extent of urban development. By including such areas within a WUSA, DMOA entities assume responsibility for providing wastewater service to that area within a reasonable time frame.

When establishing service boundaries, consider basic principles relative to water quality in the river basin. These principles include, but are not limited to, such factors as gravity systems preferred over lift stations, standard engineering practices, reasonable management and financial practices, nonpoint nonstructural BMPs, and facility and collection system master planning. Reiterating, consolidation, and partnership options must be examined, considering long-range WUSAs and GMAs, including BMPs, to restore water quality impairments. As adjacent WUSAs or GMAs boundaries encroach or meet, the economic feasibility of service area consolidation improves over more costly treatment facility capacity expansions to serve the same local area population. These economies of scale also apply to regional BMPs to restore water quality with known impairments. Overloaded treatment facilities may consider subdividing their WUSA with local DMOAs with adequate treatment capacity. The Association encourages DMOAs to size future collection systems adequately so that future decision-makers may have the opportunity to consolidate.

Establishing a WUSA must be based on adequate long-term planning information and coordinated with local DMOAs who agree on how to serve the area long-term. Wastewater Utility Plans must address all sections of the Policy outline and checklist, including the following factors for the WUSA over a 20-year planning period.

- The identified service area.
- Population and SFE datasets, forecasts, and land use status.
  - ✓ Population projections from the State Demographer Office (SDO) are recommended.
  - ✓ Population projections from the Association's 208 AWQMP are recommended.
  - ✓ Population datasets that deviate from the 208 AWQMP or the SDO population projections must include explanation or justification statements.
  - ✓ WUSAs maps shall provide for future land use and zoning and illustrate areas in which the DMOA intends to provide wastewater service to in a coordinated agreed upon effort.
  - ✓ The population datasets and projections must match the agency's Inventory Datasheet referenced within the 208 Areawide Water Quality Management Plan: <https://drive.google.com/drive/u/1/folders/1c8HlqL3yfmEsf9N86SwZXBWdjPkCQxK3> or be updated accordingly.
- IGAs, or MOUs.
- Collection system requirements.
- Treatment facility requirements.
- Regional water quality impairment(s) best management practices.
- Sequence and timing of capital projects.



- Rates and PIF fees (and increases) necessary to finance improvements when required.
- The entity requesting the amendment must also submit, at a minimum, the following current information:
  - ✓ Population
  - ✓ Peak and average flow
  - ✓ Peak and average loading
  - ✓ Inflow/infiltration
  - ✓ Treatment capacity, hydraulic and organic
  - ✓ CDPS requirements and constraints
  - ✓ Control measures for meeting TMDL wasteloads and load allocations, if applicable
  - ✓ Permitted point source contributions (wastewater, treated reuse, urban stormwater (MS4s), CAFOs, permitted mining (O&G), etc.)

WUSAs can be modified through the flexible provisions in the Plan Amendment Process. WUSA designations will be mapped and maintained as part of the 208 AWQMP.

Sometimes, property is included within a DMOA's WUSA or GMA even though it has not been annexed or included in the legal boundaries of the municipality. The provider does not have legal jurisdiction over the property until annexation. Property within a WUSA is expected to be served by that DMOA. Typically, neighboring service area providers agree that whoever gets there first may serve an area without service. The evaluation of service options must include referrals to the affected local land use entities and consistency with any applicable IGAs or other legal arrangements (MOUs) between the responsible local governments and existing providers. The following section is the Association's WUSA Development Policy adopted into the region's 208 AWQMP.

## **B. 208 AWQMP WUSA Development Policy (2022)**

Development standards encourage regional collaboration between Designated Management and Operating Agencies (DMOAs) to build easy-to-maintain treatment and collection systems that are economically feasible rather than costly short-term solutions driven by urban development demands. Local governments recognize that water pollution is caused by and has adverse effects on regional development. Even as wastewater and other treatment facilities have improved, water quality goals have become more difficult to meet. Significant regional issues include stormwater management, construction and nonpoint source pollution, biosolids management, wasteload allocations as part of the TMDL setting processes, watershed implementation and screening, water quality monitoring, and use of OWTs require innovative, cooperative and affordable long-term regional solutions. Since established local government municipal boundaries or special district boundaries frequently do not follow hydrologic boundaries, there can be an increased cost of service associated with this type of urban growth. The wastewater treatment facility for a given municipality or special district can treat wastewater flows from multiple watersheds using force mains and lift stations at a higher cost than gravity flow systems. Due to multiple service area designations, the duplication of infrastructure can occur within a watershed. Duplication of infrastructure can also result in the underutilization of many transmission, collection, and treatment systems. Local plans have been the driving force behind changes to water supply and/or wastewater service areas. In-fill development could be limited in some areas because of insufficient capacity in existing infrastructure and limited opportunities to upgrade these systems. Two critical components for urban development are wastewater service and supply. Along with transportation facilities, these utilities form the skeleton built by a region. Typical wastewater

treatment or water supply systems are designed to accommodate projected development through at least a 20-year time period, with some long-range system designs established for 50 years or more. Individual facilities are often sized to meet growth projections for the next 10 or 20 years. Some facilities, such as major interceptors, may be sized for the ultimate development anticipated in a sanitary sewer service area. Excess capacity in transmission, collection or treatment facilities has sometimes been used by some communities to subsidize development. As a result, population and employment projections developed for some facility plans became self-fulfilling and resulted in population and flow increases occurring faster than anticipated. Since the tax base from commercial development and the desire for new growth have been two driving factors in urban development, competition has been fierce among local governments and special districts for service area designations. The advent of the *WUSA Development Standards* changed the approach so that infrastructure decisions could be made beyond the 20-year planning horizon and, in some instances, consider the region's projected ultimate development. Water and wastewater planning must develop long-range, staged utility plans for the most feasible future service area incorporating these WUSA Development Standards. Although future development patterns can affect water management decisions, these standards allow the focus to be on ensuring protection and maintenance of clean lakes and streams, not using water quality regulation to force some predetermined land-use configuration. Instead, WUSA Development Standards support local decisions at a regional level, rather than water quality regulations potentially affecting where and when urban development occurs. Therefore, WUSA Development Standards establish BMPs for DMOAs, in cooperation with the general-purpose governments they serve and surrounding or adjacent DMOAs to:

- 1) Identify the areas they intend to serve in the long-term (30-50years); and
- 2) Provide a means to resolve territorial issues related to wastewater service areas before facilities are designed and constructed.
- 3) Establish accepted practices across the region to ensure that the North Front Range Water Quality Planning Association supports projects as they proceed through regulatory processes overseen by the Water Quality Control Division and Water Quality Control Commission.
- 4) Ensure compliance with water quality rules and regulations overseen by the Water Quality Control Division and Water Quality Control Commission.

The following Wastewater Utility Service Area (WUSA) development standards for the Association optimize regional collection systems using the best available technology at the lowest cost options while providing the general public with economically feasible solutions. The WUSA Development standards shall also adhere to those construction standards within the WQCD Policy DPR-1, as well as requirements in other WQCC and WQCD regulations, policies and guidance. In Region-2, water supply is and will remain a limited resource. A local DMOA coordinated water supply planning involving the water providers will be needed to maximize water supply capacities. It cannot be assumed that all water providers will find sufficient quantities of water to meet all development expectations. Those water providers with surplus water resources could outgrow those providers with limited capacities dictating projected urban development, which will require sanitary services. The foundation of water quality planning is forecasting expected wastewater collection and treatment needs, which is tied to future population projections and urban development. Forecasts define wastewater flow rates and the capacity needed to collect and treat the projected volume of wastewater. Datasets and forecasts for WUSAs are included in the 208 AWQMP.

1. **Nonproliferation of Wastewater Treatment Facilities.** Prior to siting new facilities, existing wastewater treatment facilities should be expanded or consolidated instead of developing new facilities unless not legally or technically feasible.

- a. New WWTFs are not supported within a 5-mile radius of existing WWTFs.
- b. New Regional WWTFs may be built following decommissioning of one or more WWTFs within a 5-mile radius.
- c. New Regional WWTFs may not be built when adjacent collection system service sewer lines are available within two miles of each other.
- d. A maximum of two lift stations are preferred over building new WWTFs.
- e. Existing WWTFs within a 5-mile radius of each other are required jointly to explore consolidation in the Utility Plan process, considering current treatment facilities' life cycle costs and the ability for consolidation regarding their sewer collections systems, i.e., line sizing or capacity. Submitting a thorough examination/assessment report with a record of public consideration and decision for inclusion into the 208 Areawide Water Quality Management Plan (208 AWQMP). **Including providing a chosen mechanism for how the regional DMOAs will keep exploring consolidation over the 20-year planning period and provide periodic reports to the Association documenting activities.**
- f. WUSAs with collection sewer systems within 2.5-miles of each other are encouraged to examine partnerships and consolidation over WWTF capacity increases or lift stations to provide the general public with economically feasible solutions.
- g. Partnerships and Consolidation of WUSAs are encouraged to optimize regional collection systems by topography and significant landmarks.
- h. Consolidation can result in economies of scale for wastewater treatment and better planning to meet increasingly stringent water quality regulations. Additionally, consolidation generally results in lower user rates over time.
- i. Before siting new facilities, existing wastewater treatment facilities should be expanded or consolidated instead of developing new facilities unless not legally or technically feasible.
- j. The Project will not result in excess capacity in existing water or wastewater treatment services or create duplicate services.

2. The following additional criteria apply to any development of major new domestic water and wastewater treatment systems or major extensions of existing domestic water and wastewater treatment systems:

- a. The Project shall be reasonably necessary to meet projected community development and population demands in the areas to be served by the Project or comply with regulatory or technological requirements.
- b. To the extent feasible, water and wastewater treatment facilities shall be consolidated with existing facilities within the area.
- c. New domestic water and sewage treatment systems shall be constructed in areas which will result in the proper utilization and optimization of existing treatment plants and the orderly development of domestic water and sewage treatment systems of adjacent communities.
- d. The Project shall be permitted in those areas in which the anticipated growth and development that may occur as a result of such extension can be accommodated within the financial and environmental capacity of the area to sustain such growth and development.
- e. New domestic water and sewage treatment systems shall be permitted in those areas in which the anticipated growth and development that may occur as a result of such extension outside of current urban development can be accommodated within the financial and environmental capacity of the area to sustain such growth and development.

3. Gravity sewers are preferred over lift stations.

- a. If it can be served by gravity, it shall be served by gravity.
  - b. Including examining if an adjacent DMOA WUSA may serve a sewer area by gravity more efficiently, it shall be preferred.
- 4. Interceptors shall be sized for consolidation sited within 2-miles of an adjacent service area. Interceptors may be staged for ultimate build-out with appropriate economic or right-of-way justification.
- 5. Lift Stations are allowed when economically infeasible to a gravity sewer within a 5-mile radius.
  - a. Proposed lift stations shall include topographical maps illustrating the proposed force main elevations in an elevation profile; additionally, proposed lift stations shall include a gravity line elevation profile displaying sewer line sizes and cost comparisons.
  - b. No Lift Stations are allowed when gravity sewer service is available within a 2.5-mile radius.
  - c. Lift Stations shall be designed for the build-out capacity for the regional service area intended to be served in the long-term.
  - d. Proposed Lift Stations within 2.5 miles of an adjacent sewer service agency that is down gradient must provide a letter of agreement for construction documenting that the area in question cannot be served by the adjacent agency that is down gradient. Agreements must confirm public meeting minutes and the decision.
- 6. OWTs are not allowed when a sewer service line is available, according to the local county health department code and Regulation #43.
- 7. DMOAs must serve new urban developments that flow by gravity within their approved WUSA. Economic hardship is not considered regarding the DMOA or the Developer.
- 8. Private Wastewater Operations are Discouraged. The ownership and management of wastewater treatment facilities by homeowner associations or private wastewater operators should not be allowed unless there is no other option. The preferred choice is for the local DMOA to assume ownership and operation of lift stations.
- 9. Economic Feasibility. The Term Economic Feasibility goes beyond the upfront capital cost of the Project being considered. Economic Feasibility should include the long-term maintenance and operation costs of the Project and the financial burden on ratepayers and residents. The Financial burden consists of the existing tax burden and fee structure for government services, including but not limited to assessed valuation, mill levy, rates for water and wastewater collection and treatment, and costs of water supply. Thus, the Project's net effect is the residents' financial burdens and is considered part of the Economic Feasibility of projects. Beyond the financial burden of the ratepayers and residents, the Project should consider the impacts on the local economy. Description of the local economy including but not limited to revenues generated by the different economic sectors and the value of productivity of different lands. Local economic impacts and net effects of the Project on the local economy and opportunities for economic diversification can be illustrated by examining regional opportunities for consolidation. The determination of technical and financial feasibility of the Project may include but is not limited to the following considerations:
  - a. Amount of debt associated with the Project.
  - b. Debt retirement schedule and sources of funding to retire the debt.
  - c. Estimated construction costs and construction schedule with the Project.
  - d. Estimated annual operation, maintenance, and monitoring costs with the Project.
  - e. Estimated user rates over the 20-year planning period of the Project.

- f. Changes in costs of water and wastewater treatment.
- g. Estimated local economy impacts over the 20-year planning period of the Project.
- h. Changes in assessed valuation.
- i. Changes in Tax revenues and fees to local governments that will be generated by the Project.
- j. Changes in tax revenues caused by agricultural lands being removed from production.
- k. Changes in opportunities for economic growth and diversification.

10. The Project will not create an undue financial burden on existing or future residents of the Association 208 Planning-Region 2.

11. The Project will not significantly degrade any current or foreseeable future sector of the local economy of the Association 208 Planning-Region 2.

12. The Project will not have a significant adverse effect on the quality or quantity of recreational opportunities and experience of the Association 208 Planning-Region 2.

13. The project's planning, design, and operation shall reflect principles of resource conservation, energy efficiency, and recycling or reuse.

14. The Project shall emphasize the most efficient use of water, including the recycling, reuse, and conservation of water.

15. The Project will not result in excess capacity in existing water or wastewater collection and treatment services or create duplicate services.

16. The Project shall be necessary to meet community development and population demands in the areas to be served by the Project.

17. The Project will not significantly degrade air quality.

18. The Project will not significantly degrade existing visual quality.

19. The Project will not significantly degrade surface water quality.

20. The Project will not significantly degrade groundwater quality.

21. The Project will not significantly degrade wetlands, and riparian areas.

22. The Project will not significantly degrade terrestrial or aquatic animal life or its habitats.

23. The Project will not significantly deteriorate terrestrial plant life or plant habitat.

24. The Project will not significantly deteriorate soils and geologic conditions.

25. The Project will not cause a nuisance.

26. The Project will not significantly degrade areas of paleontological historic, or archaeological importance.

27. The Project will not result in unreasonable risk of releases of hazardous materials.
28. The Project will/will not cause or contribute to urban sprawl or “leapfrog or flagpole” development.
29. Promotes contiguity of development associated with the Project to existing growth centers.
30. The benefits accruing to the County and its citizens from the Project outweigh the losses of any natural, agricultural, recreational, grazing, commercial or industrial resources within the County, or the losses of opportunities to develop such resources.
31. Urban development, population densities, and site layout and design of stormwater and sanitation systems shall be accomplished in a manner that will prevent pollution of surface water and the pollution of aquifer recharge areas.

Pertinent factors relating to the appropriate land use pattern and support the WUSA Development Policy for the Region include:

- 1) Dispersed land uses necessitate a more extensive utility service network than concentrated patterns, incurring costs considerably higher than would be attributable to a concentrated pattern of development. The greater the dispersion, the greater the linear length of roadways required to connect residences with destination points (employment, shopping, entertainment, etc.). In addition, the effectiveness of public transportation systems depends on concentration of potential users. Lower concentrations and densities result in higher operating costs and generally lead to a greater reliance on the automobile to serve the needs of residents.
- 2) On a per capita basis, at first glance it would appear that the costs of providing public services (police and fire protection, health, and educational facilities, etc.) would be constant for dispersed and concentrated land use patterns. However, the costs of providing services to a dispersed population can be considerably higher than the costs of providing equal services to a concentrated population. To maintain adequate levels of police and fire protection additional facilities must be built and maintained in the local areas thus increasing the capital operating and maintenance cost of providing such services over the costs that would be incurred in providing a similar level of service to a concentrated population from centralized facilities. For those services where the provision of additional facilities is not necessary to protect the health and welfare of the residents, the costs are still higher for providing services to a dispersed population versus a concentrated one. In these cases, the residents must incur transportation costs of getting to and from the service location, and the farther from the facility they live, the higher the transportation cost.

In addition, dispersed development may incur inequities in the financial support of public service systems. Those residing in outlying areas may use libraries, museums, parks, and other services in urban areas without appropriate compensation to the municipality providing the service. Hence, the resident of the municipality assumes the burden of costs for others' benefits.

- 3) As a general rule, the greater the dispersion of land uses, the greater the capital costs of providing utility service systems (water, sewer, energy, and communication). Collection and distribution systems would have to cover more distance to service a dispersed versus a concentrated population; therefore, the capital costs of providing such services would be

higher. In addition, concentrated land use patterns provide for the construction of centralized water and sewage treatment plants which can realize the economics of scale and treat water or sewage at a lower per-gallon cost than smaller plants providing treatment for a dispersed population.

- 4) The economic viability of a recycling and maintenance program for older community areas is directly related to the intensification of use in the area. The outward shift of uses often accounts for the deterioration of the older areas. Recent shifts in residential and commercial activity along the Front Range have occurred at the expense of the downtown areas in these cities.
- 5) A decreasing supply of land available for development accompanied by a commensurate increase in the value of developable land. In general, the greater the scarcity of developable land, the higher the price such land will bring. If land uses are concentrated, land values for developable land on a per-acre basis would be higher than they would be for a dispersed pattern.
- 6) Air quality is directly correlated to the distance and number of daily automobile trips. Dispersed land use patterns encourage longer trips; hence, heightening air pollution, while concentrated patterns minimize total vehicle miles traveled thus lessening pollution.
- 7) Water consumption is directly related to the density of land uses. Per capita consumption ratios are lower in concentrated urban areas than in dispersed suburban communities. Suburban developments use more water than urban developments to irrigate extensive lawn and garden areas. The per capita consumption rate of apartment house dwellers is roughly half that of suburban dwellers [Milne 1976].
- 8) Noise levels are impacted by the pattern and density of land uses. In a dispersed pattern, the lengths of highways and local streets would be greater than in a concentrated pattern. Consequently, noise impacts would be spread over a larger area. A concentrated pattern would result in increased noise levels at centralized activity points and reduced levels in outlying areas. Therefore, exposure to noise varies significantly with the land use patterns. It should be noted, however, that actual noise exposure is a function of the specific siting of land uses (i.e., a concentration of residents in a high-noise area would expose a greater number of residents than a dispersed pattern). It is the greater opportunity for avoidance of high noise that can be attributed to a concentrated pattern.
- 9) A dispersed land use pattern will disrupt native vegetation and wildlife to a greater extent than a concentrated pattern. The degree of disruption will depend on the extent of fragmentation of the dispersed uses. The greater the dispersion, the greater the amounts of land that are utilized; consequently, the greater the potential for disruption.

Development in a concentrated urban pattern would be focused primarily in and around existing urban and suburban areas where vegetation and wildlife have already been disturbed. Species that are less sensitive have adapted to the presence of man. Those of greater sensitivity have migrated to locations away from existing communities or become locally extinct. Continued concentrations of urban uses would have a minimum impact on existing species, while a dispersed pattern would affect outlying areas where sensitive species have migrated, causing substantial disruption.

- 10) Consumption of natural gas and electricity is a function of housing type, distribution and orientation, and industrial demand. Apartment units consume less energy than single-family units. Consequently, the increasing densities of a concentrated pattern require less energy per unit than a dispersed pattern. Additionally, there is a correlation between the length of a transmission system and the loss of electrical energy. Because a dispersed pattern requires longer transmission systems than a concentrated pattern, it results in higher losses in energy during transmission.

Gasoline usage is a function of total vehicle miles traveled. In a dispersed land use pattern, vehicle miles traveled are higher than in a concentrated pattern. Therefore, dispersed land-use patterns create higher gasoline consumption on a per capita basis than do concentrated patterns.

- 11) A dispersed land use pattern would tend to perpetuate fragmentation of public services. As population and land-uses grow and disperse, attempts to consolidate individual special districts and governmental units would be hindered.

Fragmentation of services often results in a low level of effectiveness and efficiency, and overlapping jurisdictions hinder a coordinated effort to provide for and guide growth. Agencies often compete for available funding, and tax dollars can be spent on capital improvements that contradict improvements made by other agencies. In some cases, improvements bear no relationship to either existing or potential concentrations of population.

A concentrated pattern of urban and suburban uses would tend to increase the consolidation of the public service districts and their boundaries. Consolidated districts reflecting concentrations of development, whether urban or rural, contribute to the efficiency and effectiveness of guiding growth.

All of the factors discussed above indicate advantages that could be gained by directing future development in the Region in a concentrated pattern and the disadvantages of allowing development to occur in a dispersed manner. Based on these factors, it is obvious that the Region would benefit through the development and adoption of a land-use strategy that resulted in a concentrated land use pattern promoting consolidation of wastewater collection and treatment based on concentrated urban patterns.

Throughout the Region are numerous communities located along the principal north-south and east-west highways and railroads. Most are located along U.S. Highway 287 (Laporte, Fort Collins, South Fort Collins Sanitation District, Loveland, and Berthoud), U.S. Highway 85 (Nunn, Pierce, Ault, Eaton, Greeley, Evans, LaSalle, Gilcrest, Platteville, Fort Lupton, and Metro Water Recovery), Colorado Highway 60 (Johnstown and Milliken), and U.S. Interstate 76 (Lochbuie, Hudson, Resource Colorado Metro District, and Keenesburg). Others along I-25 include Wellington, Boxelder Sanitation District, Timnath, South Fort Collins Sanitation District, Loveland, Johnstown, Berthoud, Mead, St. Vrain Sanitation District, Erie, and Broomfield. U.S. Highway 34 starting in Rocky Mountain National Park includes Estes Park Sanitation District, Upper Thompson Sanitation District, Loveland, Johnstown, and Greeley.

It is a recommendation of the Association that these agencies along major highways explore opportunities for collection and/or treatment consolidation as well as other

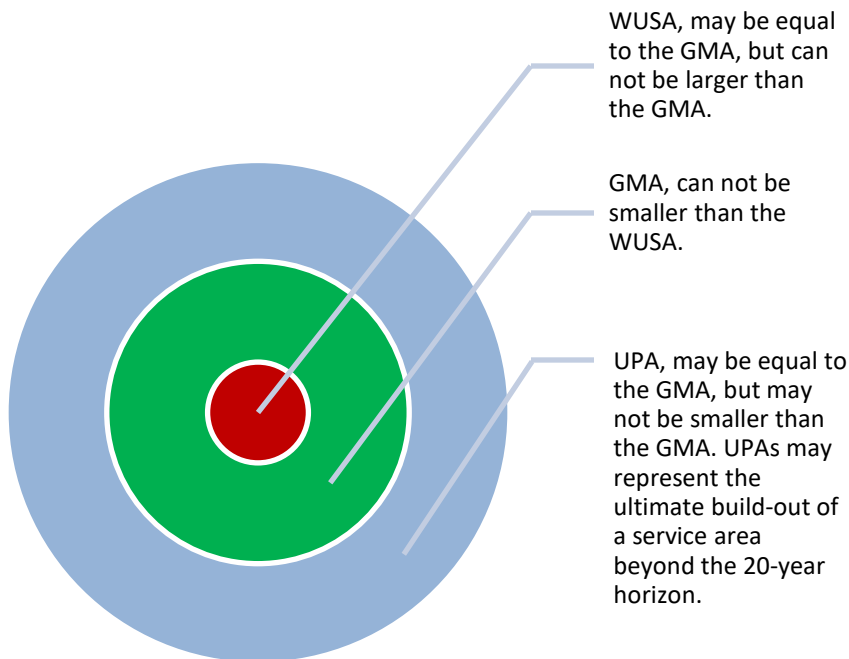


opportunities to improve treatment processes with partnerships. Fort Lupton and Metro Water Recovery are trending towards consolidating treatment. Johnstown and Milliken along Colorado Highway 60 are located in close proximity to one another and are trending towards convergence. Others most recently to explore consolidations are Mead and St. Vrain Sanitation District, and Resource Colorado Metro District, Hudson, and Keenesburg.

### C. Growth Management Area & Ultimate Planning Areas

Long-range wastewater service areas are called Growth Management Areas (GMAs) and are equal to a municipality’s Ultimate Planning Area. As a result, no GMA can be smaller than a WUSA. The portion of the urban growth boundary beyond the GMA, typically known as the UPA, is based on approved local comprehensive plans the DMOA intends to serve at ultimate build-out. In some cases, the GMA may represent the total urban area needed for a projected longer-term population or the ultimate build-out of a WUSA. Regional DMOAs must collaborate, coordinate, and agree on land use, zoning, and wastewater service for areas beyond their WUSA, including the GMA and UPA.

**Growth Management Areas are either equal to Wastewater Utility Service Areas (WUSAs) or larger.**



**Figure 2 WUSA, GMA, & UPA Illustration**

Since WUSAs and GMAs recognize different geographies, the growth density assumptions may differ for the two areas. DMOAs are expected to provide their density assumptions and flow projections that are consistent with local comprehensive plans for GMAs.

**Growth Management Areas may represent the ultimate build-out of a service area.**

Consolidation or partnership options must be thoroughly assessed with regional DMOAs considering long-range WUSAs and GMAs, including the UPA area beyond the GMA, including wastewater collection and treatment, and impaired water quality BMPs. As adjacent WUSAs or

GMA boundaries encroach or meet, the feasibility of service area consolidation improves over more costly WWTF capacity expansions to serve the same local area population. Scales of economy and feasibility also apply to BMPs to restore water quality impairments. Within the 20-year planning period and beyond, partnerships and consolidation options should consider population projections and stream segment water quality impairments. Partnerships and consolidation options should include considerations for trading credits for water quality-based permitted limits and parameters of concern. DMOAs need to provide a map illustrating current and future WUSAs, GMAs, land use and zoning, and those surrounding areas where the DMOA intends to provide wastewater service in coordination and agreement with regional DMOAs. These maps collectively become the 208 Planning mechanism included in the 208 AWQMP and give the Association the authority to make decisions regarding future wastewater service to the region.

#### **D. Wastewater Utility Service to Non-urban Areas**

**Wastewater Utility Service Areas (WUSA) can have land areas designated as non-urban wastewater planning areas.**

Wastewater service to non-urban areas can include designated open space, permanent non-urban developments served by OWTSs, agricultural, or special use. These non-urban areas may not be economically served by centralized service in the *near-term*; they will require other management solutions. The land use management agency may designate non-urban wastewater planning areas as permanent non-urbanized areas to

be served by on-site wastewater treatment systems (OWTS) with a design capacity of 2,000 gallons/ day or less. The land use planning agency may also designate wastewater planning areas as permanent non-service areas (open space, agricultural regions, and low-density non-urban with no more than one residence or structure per 35 acres). These designated non-urban wastewater and open space areas must be coordinated and agreed upon between regional DMOAs and Larimer and Weld County as the land use management agency that regulates and approves OWTSs. Data or maps from the Larimer or Weld County Health Department can assess the population OWTS serves within a DMOA's WUSA or GMA. The population served by OWTS should be evaluated and considered concerning WWTP flow and loading projections. Regional OWTS maps are also available on the Association's website.

**Interim non-urban areas that do not require centralized services may be served by on-site systems in the interim period.**

Interim non-urban areas can also be designated as being expected to urbanize and eventually need centralized services. Wastewater Utility Plans should address how these temporary non-urban areas within the GMA will ultimately be served. The report should include an estimate of when urban service requirements will be available or required. Non-urban areas where collection systems are to be extended should be constructed and sized, considering long-term consolidation options. The Association encourages DMOAs to size future collection systems adequately so that future decision-makers may have the opportunity to consolidate.

**Management agencies are required to identify a method to evaluate water quality effects related to OWTSs located within designated Growth Management Areas or Wastewater Utility Service Areas.**

Larimer and Weld County are the nonpoint source management agencies responsible for non-urban wastewater (OWTS) planning. Larimer and Weld County Health Departments should provide appropriate methods to evaluate water quality effects related to significant lot developments served by OWTSs within non-urban wastewater service areas. The Wastewater Utility Plan will need to map substantial lot

developments located in service areas utilizing OWTSS. As helpful information to the 208 AWQMP, the Larimer and Weld County Health Departments should periodically provide updates to the 208 AWQMP and applicable Utility Plans regarding the number, locations, ages, and any condition assessments performed on those OWTSS within those non-urban wastewater service areas. The Larimer and Weld County Health Departments should work with regional DMOAs to recommend replacing failing OWTSS with centralized treatment works as part of the consolidation analysis.

## **E. Relationship to Site Application Approval Process**

Regulation No. 22, as approved and amended, is used as a reference. Utility Plans should meet the requirements of Regulation No. 22. The definitions used in Regulation No. 22 should be used to define terms used in any Utility Plan. Utility Plans that the Association has accepted will be used in the site approval process by the Association. Above and beyond Regulation No. 22, the alternatives in Utility Plans examine regional solutions to wastewater treatment and collection, even if those solutions don't favor the submitting DMOA.

**Site approvals are needed for construction or expansion of wastewater treatment works, lift stations, and major interceptor lines.**

As part of the state Water Quality Act, site approvals are needed to construct or expand wastewater treatment works, lift stations, and major interceptor lines. After reviewing appropriate local entities, The Water Quality Control Division finalizes Regulation No. 22 Site and Design Applications. The state act lists three items for the division to evaluate:

- 1) The comprehensive long-range plan for the area as it affects water quality and any approved regional water quality management plan for the area;
- 2) management of the facility on the proposed site to minimize the potential adverse impact on water quality and
- 3) consolidation of wastewater treatment facilities whenever feasible (see Regulation No. 22 guidance).

The Colorado Water Quality Control Commission refined these criteria to ensure that:

- Existing treatment works are not overloaded when connecting new lift stations or interceptors;
- Proposed treatment works are planned and constructed in a timely manner as needed;
- Proposed treatment works are developed considering the local long-range comprehensive plan for the area as it affects water quality and any approved regional water quality management plan for the area;
- Proposed treatment works or interceptors protect water supplies;
- Proposed treatment works or interceptors have adequately been reviewed by all necessary local, state, and federal government agencies and planning agencies;

- The proposed location will have no foreseeable adverse effects on public health, welfare, and safety;
- Applicants will provide for adequate operational management, including legal authority and financial capabilities;
- Proposed treatment works are located so that natural hazards do not unnecessarily endanger them, and
- objectives of other water quality regulations will not be adversely affected.

Regulation No. 22 allows:

*In the interest of facilitating a more effective and timely review of proposed new and expanded domestic wastewater treatment works, each planning agency may establish and implement a coordinated review and comment process to carry out the provisions of this regulation in coordination with its water quality planning responsibilities. Where a planning agency wishes to establish such a coordinated process, the Division may enter into an agreement with the planning agency specifying the procedures for this coordinated process. The intent is to establish a single process 1) to meet these site approval requirements, and 2) to meet the requirements for amendments to the water quality management plan. The process should be designed so that a new or expanded domestic wastewater treatment works which is approved as part of the water quality management plan may be concurrently deemed to also meet the requirements of these site approval regulations at the time of its inclusion in the plan. Under such a coordinated process, the Division retains final authority for approval or denial of each project, which is regulated under these site approval regulations.*

The Association has not, at this time, entered into an agreement with the Water Quality Control Division that specifies procedures for this type of coordinated process. However, utility plans are designed to meet the requirements of a 208 AWQMP, an amendment, and the site application process and provide the planning information needed by the division in the permitting process and the revolving loan program.

Utility Plans and the 208 AWQMP will be used jointly to review site approvals. It is necessary to size facilities such as interceptors based on a planning horizon that extends beyond 20 years to provide cost-effective service. Treatment facilities and lift stations should be staged to provide 10-year capacity increments. Still, they may be staged for shorter (e.g., interim lift stations). Consequently, interceptors and lift stations can be located within the designated GMAs. However, wastewater infrastructure designed only to serve GMAs will **not** be used in the site approval process or to meet other appropriate regulatory requirements. Wastewater infrastructure intended to serve areas within the WUSA is physically located within a DMOA's GMA. Since interceptors are often sized to last beyond 20 years, they may have excess capacity to accept flow at the ultimate build-out of a designated area. Utility Plans that include GMAs or WUSA partnerships or consolidation agreements, IGAs, or MOUs among regional DMOAs will be accepted into the 208 AWQMP for future regional planning documenting the water quality and economic benefits.

**Interceptors may be staged for ultimate build-out with appropriate economic or right-of-way justification.**

## IV. UTILITY PLANNING FOR TREATMENT AND COLLECTION AGENCIES

### A. General Requirements

Utility Plans document the wastewater management strategy for wastewater treatment facilities or lift stations (greater than 2,000 gallons per day design capacity) and the associated planning service area. All Utility Plans will contain a defined set of minimum information (location, sizing, staging, service area, process system, effluent quality, TMDL considerations, nonpoint source contribution, financial arrangements, facility data summary, and examine partnerships and consolidation options) to satisfy state or federal requirements.

Utility Plans must provide sufficient planning to show potential long-term adverse water quality effects will be minimized from any proposed new facility or facility expansion and protect, maintain, or restore regional water quality impairments. Utility Plans will provide planning documentation for the WUSA, GMA, and UPA, with the WUSA having the maximum level of information, including future wastewater service plans for the WUSA, GMA, and UPA that are regionally coordinated and agreed upon between DMOAs. Reiterating, Utility Plans are not a research project but rather a *group* project involving regional DMOAs collaborating on providing regional sewer service in a coordinated, agreed-upon effort.

**Utility Plans define location, sizing, staging, service area, process system, effluent quality, nonpoint source contribution, financial arrangements, facility data summary, and appropriate state or federal requirements.**

These coordinated efforts are the 208 Planning mechanism included in the 208 AWQMP and give the Association the authority to make decisions regarding future wastewater service to the region.

The primary goals in establishing Utility Plans are to provide reasonable, feasible, and economical wastewater service to an area designated for development and examine stream segment or river basin BMPs for water quality impairments to protect, maintain, or restore water quality. Utility Plans should consider the water quality impact the treatment system will have on receiving water. The Utility Plan should include any control measures (BMPs) for meeting all applicable, known future, water quality standards, impairments, TMDLs, and EPA use classifications while estimating the potential impact agencies may have on one another or their respective nonpoint source contribution to the river basin.

Information in a Utility Plan is used in the 208 AWQMP processes to document the best method of providing wastewater service while meeting water quality goals through the 20-year planning horizon. Utility Plans can also function to define service beyond the 20-year planning horizon. Concerning Section 208 regional planning, the Utility Plan must examine regional partnerships and consolidation options to optimize service areas and treatment facilities to provide reasonable, feasible, and economical wastewater service to an area designated for development, protecting the region's water quality. Above state and federal requirements, the central focus of a utility plan is to examine and recommend wastewater treatment and collection options that provide regional solutions to protect water quality that are economically feasible for the general public. Utility Plans are the 208 Planning mechanism included in the 208 AWQMP and give the Association the authority to make decisions regarding future wastewater service to the region.

The Association will maintain a reference set of accepted Utility Plans developed by management agencies or operating agencies for all wastewater treatment facilities with an active discharge permit or Notice of Authorization to produce treated wastewater for reuse. Direct industrial dischargers who also process domestic wastewater will be encouraged to develop Wastewater Utility Plans. Direct industrial dischargers are also encouraged to participate in examining stream segment or river basin water quality impairments

and coordinating BMPs with regional DMOAs. The following pages in this section provide an organizational structure (outline) that must be followed for 208 Utility Planning. The Utility Plan structure discussed after this includes information on the intended content of various sections in a Utility Plan.

## **V. REQUIRED FORMAT AND OUTLINE FOR UTILITY PLAN**

### **(REQUIRED)**

*As presented within and in the checklist, all sections/chapters and subsections must be included in this format/organization or order exactly and are required for a Utility Plan to be accepted for review and considered for approval to meet the Utility Plan Policy document's minimum requirements.*

- I. EXECUTIVE SUMMARY**
- II. INTRODUCTION**
- III. EXISTING CONDITIONS**
- IV. FUTURE CONDITIONS**
- V. RECEIVING STREAM WATER QUALITY**
- VI. WASTEWATER TREATMENT & COLLECTION SYSTEM IMPROVEMENT ALTERNATIVES**
- VII. DMOA MANAGEMENT AND FINANCIAL PLAN**
- VIII. EQUITY AND CLIMATE**
- IX. NFRWQPA REGIONAL 208 AWQMP INVENTORY DATASHEET**
- X. APPENDICES (see outline checklist defining appendices)**

## **SECTION I. EXECUTIVE SUMMARY**

### **1. Executive Summary.**

The executive summary requires the following subsections;

- 1) **Purpose,**
- 2) **Scope,**
- 3) **Planning Period,**
- 4) **Project recommendations,**
- 5) **Project(s) Financial Summary,** and
- 6) **Implementation Schedule** for those projects identified within the Utility Plan.

The executive summary should briefly answer eight basic questions (typically 3 to 4 pages or less). The basic questions include:

- 1) **Who** is doing the project,
- 2) **What** is being planned,
- 3) **Why** is the project being considered,
- 4) **Where** will the project be located,
- 5) **When** will the project be started and completed,
- 6) **How much** will the project cost, and
- 7) **How** will the project be **funded**.
- 8) **Site layout map** should be provided.

Where treatment facilities and collection systems are concerned, map(s) should indicate where major treatment components are for treatment facilities, interceptor sewers, or lift stations for collection system projects and include labeled roadways and sections.

In cases where planning is accomplished, and no immediate projects are proposed, summarize future planned projects, including costs and construction timeline.

The intent is that the report's primary content can be obtained by reading a few pages in the executive summary. The subsequent sections then provide details on each question answered above.

## **SECTION II. INTRODUCTION**

### **1. General Background of Entity.**

The report's introductory section should introduce the owner/entity preparing the report, including a brief history, County location (incorporated or unincorporated), and adjacent neighbors who also provide wastewater services.

### **2. Facilities Planning Summary.**

The introduction section summarizes the agency's planning period and planning considerations. Planning considerations include but are not limited to, population growth, treatment capacity (flow and load), treatment performance, and evaluating treatment, collection system, partnership or consolidation considerations, service area improvements, service area boundary amendments, water quality impairments, TMDLs, and future land use and zoning.

### **3. General Format of Utility Plan.**

The format must follow the structure or organization here within or outlined in the checklist, including the supporting information in the appendices, including any information unavailable, such as Preliminary Effluent Limits (PELs), Notice of Authorization (NOAs), Infiltration/Inflow studies, data, nonpoint source studies, etc.

*As presented within and in the checklist, all sections/chapters and subsections must be included in this format/organization or order exactly and are required for a Utility Plan to be accepted for review and considered for approval to meet the Utility Plan Policy document's minimum requirements.*

The Association manager and review committee may reject any submittal that does not follow this policy's outline and checklist, including recommending denial.

## **SECTION III. EXISTING CONDITIONS**

This section contains a broad range of information regarding the entity and its current situation regarding zoning, population, WUSA, existing collection system, treatment facilities, and nonpoint source contributions. All information regarding future conditions and treatment options or alternatives is covered in later sections.

## **1. Current Planning Wastewater Utility Service Area (WUSA).**

This subsection will cover **current land uses and zoning** in the WUSA. Local planning and zoning excerpts are typically included in the appropriate appendix as outlined within the checklist and summarized with exhibits. The text should delineate who the land use management agency is and note that service areas not annexed are under County Planning jurisdiction. The **existing WUSA map** illustrates the relationship between the **current Growth Management Area (GMA) and the Ultimate Planning Area (UPA)**. The body of the report must include a **1-mile radius map locating public and private potable well sites** and a **5-mile radius map locating all other WWTPs** in proximity to the treatment facility. Agencies can briefly discuss consolidation and partnership opportunities with other facilities illustrated within the 5-mile radius map regarding adjacent WUSAs and treatment facilities. WUSA maps should demonstrate the area's elevation profiles, defining the portions that may be served by gravity and those areas served by lift stations. Slope directional arrows displayed on the WUSA map show which direction sewer collection systems flow by gravity to help determine future sewer interceptors and lift stations to a centralized WWTF and areas adjacent DMOAs may better serve.

Discuss the **existing WUSA population**. The current population data should present the population and area developments served by OWTS to differentiate the population connected to the collection system and served by the treatment facility. Populated areas in the entity's service area that are not served are distinguished here so that a "sewered" population number is derived for use in determining current Single-Family Equivalents (SFEs) or other equivalent per-capita unit flow contribution values. The report must evaluate and determine the **WUSA's SFEs**. Other flow contributors to the system are mentioned here, including commercial and industrial concerns. Agencies should discuss any industries contributing more than 5% of the average flow or load as "significant industrial" contributors and provide their Standard Industrial Classification (SIC). This section should also include strategies to treat all types of water (i.e., water rights) currently received within the WUSA or could be received in the GMA in the future by potable water providers as sewerage and how those treated water supplies will be managed, including opportunities for wastewater reuse. Some water rights may be used to extinction, and others may be single-use. A WWTF must plan for receiving, treating, and discharging (possibly to differing locations) and tracking those varying amounts of water rights.

Utility Plans can show alternative projections and flows for WUSA's that are within 15 percent of the regional projections found with the 208 AWQMP. Without additional site-specific justification, projections that differ by more than 15 percent will not be recognized in the 208 AWQMP. Utility Plans will need to provide their own projections and flows for their WUSA beyond the planning horizon of the 208 AWQMP until the regional horizon is updated.

The population and SFE datasets and projections must match the agency's Inventory Datasheet referenced within the 208 AWQMP and must be updated and referenced within the Utility Plan report. Agencies can find their current Inventory Datasheet here: <https://drive.google.com/drive/u/1/folders/1c8HlqL3yfmEsf9N86SwZXBWdjPkCQxK3>.

## **2. Current Wastewater Flows and Loads.**

(a) **Influent Flows.** Provide three (3) years of influent flow records, including averages, peaks, unit volumes, SFEs gpcd, etc. This information should provide a reasonable basis for an "existing average daily flow" volume. Additionally, calculate daily peak flow rates from daily flow records. If this is not possible, determining current (and future) peak flow rates should be calculated using Regulation No. 43 - OWTS and WQCD Design Manual DR-1 and the information provided in Section IV. Determine current SFEs from the influent flow records obtained above or another equivalent per capita flow rate to



determine flow and load projections from future urbanization. New or proposed facilities can provide 3-years of influent projections based on flow rates in Regulation No. 43 - OWTS and WQCD Design Manual DR-1 related to expected growth. New or proposed facilities wastewater flow and load projections should adequately be within the receiving design capacity of the proposed wastewater facility.

Agencies are required to provide or have a current GIS shapefile layer with the Association illustrating the WUSA, GMA, UPA, current and future sewer collection system, and lift stations depicting sewer line type and sizes of sewer interceptors and lift stations, including the current flow and load of the sewer collection basins.

The report should present how the current per capita (SFEs) flow rates on an average daily (and Peak, if possible) basis were calculated by illustration. The current average and peak per capita (SFEs) flow rates are also used in conjunction with future population figures to develop future flows for planning and design purposes.

(b) **Historical Influent Wastewater Loads.** Provide a three (3) year history of loadings to the WWTF, including, at a minimum,

- 1) Flow (MGD)
- 2) Biochemical oxygen demand (BOD),
- 3) Total suspended solids (TSS),
- 4) Ammonia as Nitrogen (NH<sub>3</sub>),
- 5) Total Inorganic Nitrogen (TIN),
- 6) Total Phosphorus (TP),
- 7) TMDLs

Include any parameters that have violations of the water quality-based limits of the permit or issued Notice of Violations (NOVs) or Cease and Desist Orders (CDOs) in the last three (3) years, if not listed above. Other parameters of concern may be water quality-based targets provided within PELs, or parameters identified with the 10-year Water Quality Roadmap so that facilities may plan for them here. Summarize the data by year, including concentrations and total loadings in pounds/day. Graphs illustrating the parameters' water quality-based limits and data are valuable. For the organic, solids, and nutrient loadings, it is helpful to compare the influent concentrations and unit loadings (lbs./capita/day) to typical values to verify that the system is typical or identify any areas of concern.

(c) **Current Effluent Limitations.** Provide the discharge permit in the appropriate appendix outlined in the checklist and summarize current effluent requirements. The text summarizes the system's current design capacity (flow and load) as listed in the permit or NOA and the water quality targets (PELs) issued by the WQCD. Provide the issuance date of the current permit or NOA and when it expires (provide a copy of the permit or NOA in the appropriate appendix as outlined within the checklist). Note the point(s) of compliance for the system. Additionally, discuss any concerns or problems with the current permit or NOA concerning the existing system.

(d) **Stream segment or river basin water quality impairments.** Are current practices contributing to the impairment listing if there are water quality impairments? The Division's 303(d) Stream Impairment Assessment Tool is available at: <https://cdphe303d.erams.com/aoi/?token=PXM3rVHaF4>.

(e) **TMDL Loads.** If a TMDL(s) is in place, this loading analysis should be coordinated with the Division. Provide a three (3) year history of the loading contribution to the TMDL impairment from the existing discharge(s). TMDL information is available from the Division's TMDL dashboard: The

Division's 303(d) Stream Impairment Assessment Tool is available at: <https://cdphe303d.erams.com/aoi/?token=PXM3rVHaF4>.

If there is no historical information for a system, sampling should be conducted and presented in the report to benchmark the system against typical values.

### **3. Existing Wastewater Treatment System.**

The report should describe the following subsections for new or proposed wastewater treatment systems as if they existed. The report should provide detailed information regarding the current state of the following subsections for current wastewater treatment systems.

(a) **Description of the Existing Treatment System.** Describe the condition and capacity of each unit process in the facility process train. This description helps to point out shortcomings in the current system and shows the treatment system's capacity-limiting operations. This section should describe any physical problems (equipment) with the existing system. Provide a process schematic of the system and a site layout map, including a flow diagram with all feed and waste streams, including how the waste streams are disposed of or managed. The description of the existing WWTF should include a **site map, system schematic, and flow diagram showing inputs and waste streams**. Schematics and maps need to be clear and on a legible scale within the report.

(b) **Performance of the Existing System.** Provide a three (3) year history of the system's performance regarding permitted parameters. This is best provided graphically as it visually represents the winter/summer and average performance conditions. The water quality-based limits, water quality-based targets from PELs, or anticipated water quality limits from parameters within the 10-year Water Quality Roadmap can be shown on each graph. This section discusses the current systems' issues with achieving compliance, including any division-issued compliance orders, NOV's, or water quality target violations. Including anticipated water quality limits or regulations such as temperature, TENORM, and PFAS. **Provide a three (3) year history of the WWTF performance, including, at a minimum,**

- 1) Effluent Flow Data,
- 2) Biochemical oxygen demand (BOD),
- 3) Total suspended solids (TSS),
- 4) Ammonia as Nitrogen (NH<sub>3</sub>),
- 5) Total Inorganic Nitrogen (TIN),
- 6) Total Phosphorus (TP),
- 7) e. Coli,
- 8) Temperature,
- 9) Stream segment or river basin listed water quality impairments, if applicable
- 10) TMDLs,
- 11) any other parameters of concern or permitted parameters (metals, TENORM, PFAS, & 10-year Roadmap).

(c) **Existing Air Quality Permit.** Discuss the facility's requirements to obtain an air quality permit. Considerations include setbacks, local and state requirements, odor considerations, and the type of on-site treatment processes.

(d) **Existing Stormwater Management Plan.** Provide a discussion on the existing treatment site requirements by CDPHE to have a Stormwater Management Plan and be permitted for site stormwater discharges. The division issues general permits for stormwater discharges regarding differing industry types

and sizes. For wastewater plants, the determination may be made on design capacity on whether or not a plant is required to obtain a stormwater permit. Agencies with WQCD permits can provide the permit number, issuance date, expiration date, and other appropriate information concerning the permit.

(e) **Existing Site Characterization.** Describe the topography of the treatment site location, including a **floodplain map** concerning the site location.

(f) **Existing Facility Emergency Response Protocols.** Describe the facility's emergency operating sequence in the event of power failure, flood, or another catastrophic event. What backup plans have been put in place to maintain adequate operation. All lift stations and treatment facilities must have backup emergency power and remote alarm telemetry. In the case of privately-owned lift stations, provide arrangements that have been documented and agreed to regarding SSO events.

(g) **Existing Biosolids Management Program.** Describe the current bio-solids treatment and disposal process used at the facility. If it is a lagoon system, provide information on the last time the lagoons were cleaned or dredged. Biosolids could be a Technology Enhanced Naturally Occurring Radioactive Material (TENORM) process; if any testing data exists for TENORM, please include that data summary. Including if the tested biosolids exceed any radioactive standards and the disposal process of the radioactive material. Note that the Association promotes the beneficial use of bio-solids and has a policy which is discussed below:

#### ***Biosolids Policy***

*Although there are other legal means of disposing of biosolids (such as incineration and land filling) neither method benefits Colorado as does recycling. Burning biosolids consumes huge amounts of energy and pollutes the air, while burying them takes up valuable space in local landfills. Recycling biosolids is clearly the preferred method for disposal.*

*The Association recognizes and supports recycling biosolids' economic and environmental benefits. The biosolids positions are as follows:*

- *Public health and environmental quality are protected under federal and state biosolids regulations. The Association encourages member governments not to adopt local public health regulations more stringent or restrictive than federal or state biosolids regulations.*
- *The Association encourages biosolids' practical and beneficial land application in the region. Member governments with land use authority should regulate biosolids disposal through local zoning and platting. Local regulations should focus on transportation, aesthetics, and land use issues.*

*The biosolids policy will be used by the NFRWQPA staff in the site approval process, as defined in the 208 Plan.*

(h) **Condition Assessment of the Existing WWTF.** Provide a current condition assessment report of the current wastewater treatment system and biosolids program.

(i) **Recommendations for WWTF & Biosolids Program Improvements.** Reviewing the existing treatment system, including biosolids, from a mechanical, capacity, and performance standpoint, including inputs and waste streams, discusses the need for a project to keep the entity compliant. Discuss compliance with either the existing treatment system or the need for new process(s) or a new treatment facility, presented and discussed in Section VI of this report.

(j) **Recommendations for water quality impairment(s) BMPs.** Reviewing the stream segment or river basin's water quality impairment(s), and examining how the wastewater treatment facility, including biosolids, from a mechanical, capacity, and performance standpoint, including inputs and waste streams, may restore water quality for those listed impairments. Discuss the need for BMPs with either the existing treatment system or the need for new process(s) or a new treatment facility, presented and discussed in Section VI of this report that restore water quality for those listed impairments.

#### **4. Existing Collection System.**

The report should describe the following subsections for new or proposed collection system(s) as if they existed. The report should provide detailed information regarding the current state of the following subsections for current collection systems.

(a) **GIS Shapefile.** Agencies must provide or have a current collection system **GIS shapefile** layer with the Association illustrating the GMA, UPA, WUSA, current sewer collection system, and lift stations depicting sewer line type and sizes of sewer interceptors and lift stations.

(b) **Existing Layout.** Describe the existing interceptor sewer collection system. Provide information on alignment (**map**), including the WUSA sewer line sizes, type of pipe material, and linear feet of each within the map legend. Also, **provide a table summarizing the collection system inventory, including pipe diameter sizes, feet or miles, type of pipe, and gravity vs. force mains.** The discussion shows drainage basins (areas) and notes any known condition, capacity, or I&I issues. The mapping shows the location of the existing lift stations and note station nomenclature within the map's legend. The Weld and Larimer County Health Departments should be involved in identifying any failing OWTs within the service area of the existing collection system layout for possible consolidation. A map illustrating all the OWTs within the WUSA should also include the proximity to the sewer collection system.

(c) **Existing Lift Stations.** For each lift station (including privately owned), **summarize in a table the lift station's capacity, percent utilization, alarm system, emergency protocols, emergency power generator,** or other arrangements in the report. Lift stations' standard operation procedures should define all necessary activities and scheduled maintenance to prevent Sanitary Sewer Overflows (SSOs). Discuss whether all lift stations were at design capacity if the receiving WWTF would be overloaded. If so, when will the receiving WWTF capacity be expanded based on the analysis? All existing lift stations must be included or illustrated within the **GIS shapefile and maps** within the report.

(d) **Existing Condition Assessment of Collection System and Lift Stations.** Provide the current condition assessment report of the current collection system, including lift stations. A plan of operation defining all necessary activities and planned scheduling to assure satisfactory operation and assurance of the prevention of SSOs. For example, a thorough condition assessment of the collection system includes:

- 1) Approximate length (feet) of each pipe size and composition.
- 2) Include a manhole inventory (quantity/each size).
- 3) Utilization of an asset management program.
- 4) M&R program. Or CMOM: What is the budget?
- 5) CCTV Program? How much in footage or percent of the system is inspected yearly?
- 6) Cleaning/maintenance program. How much footage or percent of the system is cleaned yearly? What is its NASSCO rating (PACP and MCAP)?
- 7) Utilization of GIS (or other).
- 8) SSO/emergency response plan.

- 9) I&I source investigation program.
- 10) Hydraulic Model Examining Capacity or Overloading issues in the collection system.

(e) **Assessment of Infiltration and Inflow.** This information can quickly analyze the collection system's general Infiltration and Inflow (I&I) levels. The EPA guideline for potentially excessive I&I on an average daily flow basis is 120 gallons per capita per day (gpcd) (EPA, May 1985). The inflow is excessive if the average wet weather flow exceeds 275 gpcd (EPA, May 1985). The above I&I EPA numbers cited historically have been used for grants and loans and are outdated. However, the Division determines excessive I&I on a case-by-case basis. The Utility Plan must illustrate what portion of the daily flow basis per capita per day (gpcd) is I&I and what part is attributed to calculated or anticipated wastewater flows. This includes domestic wastewater flow, infiltration, and nominal industrial and commercial flows. I&I is perhaps the single most significant problem experienced by WWTPs throughout the region. **Infiltration** refers to extraneous water entering a sewer system below the ground, including leaking service connections - for example, from defective pipes, joints, connections, or manholes. **Inflow** refers to extraneous water entering a sewer system above ground through improper openings or connections. It includes catch basins, yard drains, and downspouts hooked into the sanitary sewer instead of a storm sewer; surface water gets into the sewer through a manhole cover. Both sources of excess water overload sewers and interfere with the treatment plant's ability to do its job. The excess flow overloads the hydraulic capacity of the WWTP, resulting in bypasses of untreated wastewater during storm events. This issue becomes a critical factor when the expansion of a WWTP is proposed due to growth when the present facility could accommodate that growth if I&I were solved.

Unsupported I&I estimates should be 10 percent, at a minimum, of the average daily flow ([CW-14 Implementation Policy Regulation No. 22 – Site Location and Design Regulations for Domestic Wastewater Treatment Works \(5 CCR 1002-22\)](#)). Along those same lines, I&I calculated by any means greater than 10% of the daily flow basis per capita per day may be considered excessive. There may be various ways to calculate I&I, typically flow meters, drinking water vs. influent, and seasonal graphs looking for spikes during precipitation events to identify I&I issues. Include a plan of correction for excessive I&I identifying issues with an implementation schedule. Any previous information on I&I in the area should be included in the appropriate appendix as outlined within the checklist. Wastewater collection and treatment are costly and can significantly increase with excessive I&I. I&I can be substantial and calculated as high as fifty percent of the flow for much older collection systems. If your treatment facility is at or near capacity and a WWTF upgrade will be necessary, measure the cost of reducing I&I to free up capacity at the existing WWTF against the cost of building additional treatment capacity (Water Infrastructure Outreach, June 2014). If I&I is excessive, the Utility Plan must provide a plan of correction and timeline.

(f) **Pretreatment Program (Grease).** The U.S. EPA administers the National Pretreatment Program under the General Pretreatment Regulations, first adopted in 1978. These regulations, amended in 1981 and again in 1988, establish specific requirements for wastewater treatment facilities and industries to comply with to reduce industrial pollutant discharges. The *General Pretreatment Regulations* require that any wastewater treatment facility designed to treat over five million gallons a day of wastewater or receive significant discharges from industrial sources develop a local pretreatment program conforming to EPA regulations. Management and operating agencies must meet specific requirements under the *General Pretreatment Regulations*. The EPA General Pretreatment Regulations require establishing pretreatment programs to control pollutants that pass through or cause interference with the discharge to POTWs, like Fats, Oils, and Grease (FOG) from food service establishments. Combined sewer overflows and sanitary sewer overflows (SSOs) have identified grease from restaurants, homes, and industrial sources as the most common cause of reported sewer blockages. Grease is problematic because it solidifies, reduces conveyance capacity, and blocks flow. Controlling FOG discharges from identified sources is an essential element in

managing SSOs and ensuring proper operations for many POTWs. Utilities should indicate whether they have a Grease Program and or EPA-approved pretreatment program.

Discuss the entity's pretreatment program and the industries included in the program. Summarize the quantities of flows and loads from the industries to the treatment system and each industry's pretreatment requirements. Provide a copy of the pretreatment (Grease) program in the appropriate appendix, as outlined within the checklist.

This section may discuss how the agency pretreatment program addresses PFAS under Policy 20-1 regarding source investigations and how those investigations are conducted.

(g) **Recommendations for Collection System and Lift Station Improvements.** Based on the discussion of the current collection system and lift station(s) conditions and capacities, note any improvements that need to occur to provide adequate service to existing customers. Provide a schedule where the identified modifications or improvements will occur, exclusive of growth issues discussed in Section IV. These may be addressed as phased collection system projects throughout the Utility Plan's planning period to plan for site application approval. Pretreatment program recommendations, such as PFAS issues, may also be discussed here. The excessive I&I plan of correction should be included as recommendations for collection system improvements. Collection system improvements shall protect the river basins' water quality listed impairments and protect, maintain, or restore the area's water quality.

## **SECTION IV. FUTURE CONDITIONS**

### **1. Population and Land Use Projections.**

The currently approved [208 AWQMP](#) includes the region's official population projections and may be accessed online. Note: the 208 AWQMP includes municipal population projections and an agency's service area population projections. Population projections outside the accepted regional 208 AWQMP or SDO population projections (+-15%) must be explained and justified.

Using a 20-year planning horizon, delineate the area served by the entity and land uses in that area (comprehensive plan reference). The Utility Plan can recognize two types of wastewater service areas: WUSAs and GMAs. WUSAs are those areas within the region that require urban services through the 20-year planning horizon or any subsequent modification to the urban growth boundary or planning horizon. GMAs are based on existing local comprehensive plans, comprehensive long-range plans, or the area where a wastewater provider intends to provide service at ultimate development buildout. GMAs are either equal to WUSAs or larger, and consequently, no GMA can be smaller than a WUSA. Agencies must regionally collaborate, coordinate, and agree to future wastewater service concerning service areas, growth management areas, and ultimate planning areas. These coordinated efforts are the 208 Planning mechanism included in the 208 AWQMP and give the Association the authority to make decisions regarding future wastewater service to the region.

Population projections define wastewater flow rates and the capacity needed to treat a projected volume of wastewater. Wastewater population flow projections will be generated from WUSAs, not GMAs. Forecasts for WUSAs are incorporated into the 208 AWQMP.

The 208 AWQMP may use equivalency processes to convert population data sets to WUSAs for selected planning years (five-year intervals) through the 20-year planning period for use with potential longer-term development within GMAs. Utility Plans can show alternative projections and flows for WUSAs. Several

factors can cause differences in projections. The Utility Plan must list the relevant factors and discuss how these factors alter projections.

Utility Plans must provide their **population projections and flows for GMAs or WUSAs for the 20-year planning period**. These population projections must include **SFE factor projections**. Forecasts for WUSAs will be used in the site approval process and to meet other appropriate regulatory requirements. To be cost-effective, ultimate buildout population forecasts, including year, may be used to plan future wastewater infrastructure. Ultimate buildout may need to accommodate future interceptors, lift stations, and land areas required for new or expanded wastewater treatment facilities.

Ultimate buildout forecasts will be referenced in the site approval or other appropriate regulatory processes.

The population and SFE datasets and projections must match the agency's Point Source Inventory Data summary sheet referenced within the 208 Areawide Water Quality Management Plan: <https://drive.google.com/drive/u/1/folders/1c8HlqL3yfmEsf9N86SwZXBWdjPkCQxK3> or be updated accordingly.

DMOAs must provide a **map illustrating current and future WUSAs, GMAs, UPAs, land use and zoning**, and those surrounding areas where the DMOA intends to provide wastewater service in coordination and agreement with regional DMOAs.

## **2. Flow and Load Forecasts and Projections.**

The currently approved [208 AWQMP](#) includes the region's official flow and load projections and may be accessed online. The Utility Plan must explain flow and load projections outside the accepted (+15%) regional 208 AWQMP official flow and load projections.

Based on the population forecasts generated in the previous sub-section, **derive the future flows and load projections for 20-year planning** purposes, including defining an ultimate buildout population and the year expected to be reached. For a new treatment plant or expansion, the report must demonstrate that using existing treatment facilities is inadequate to meet regulations and that new or additional discharge will not adversely affect existing dischargers in the river basin or segment, TMDLs, or degrade the river basin water quality. Forecasts are determined by defining the service area, considering historical data, engineering flow and loading assumptions (e.g., flow, organic, solids, nutrient, nonpoint sources), the engineering design, service area population, land use, and unique customers, and using population and employment projections or land use projections as noted in the Service Area Definition of Regulation No. 22 Guidance Document. Potential land use, flow, and concentration changes shall be considered to develop hydraulic and loading forecasts. Document the proposed project design hydraulic and loading conditions for the liquid stream treatment, biosolids handling, sludge stabilization, conveyance, and other proposed systems, documenting the methodology for determining the flow and loading projections served by the proposed WWTF for the existing and projected planning period (WPC-DR-1, 9-15-12). Flow and loading forecast information should be coordinated with the division's TMDL development group to inform the agency of any TMDLs in progress or anticipated development within the planning horizon period of the Utility Plan.

## **3. Projected Wastewater Flow Characterization.**

Agency **WUSA population and SFE projections** in Utility Plans will be adopted into the 208 AWQMP, including designated interim or permanent non-urban wastewater service areas. The 208 AWQMP will predict **wastewater flows in five-year increments through 20 years for DMOA's WUSA and non-**



**urban service areas** defined by management agencies at the watershed and river basin level, including defining flows at the ultimate buildout population.

(a) **Wastewater flow projections.** Document the projected wastewater flows for the 20-year planning period in five-year increments, including projected **WUSA population, SFEs, Flow (gpcd), and load (gpcpd/BOD)**. Wastewater flow projections maintained in the 208 AWQMP will be adjusted for future years using available discharge monitoring reports (DMRs) when available.

The Utility Plan must provide the SFE, gallons per capita per day, and lbs. BOD per capita per day for the 208 AWQMP.

(b) **Typical Wastewater Flow Contributions for Planning Projections.** Specific engineering values may be used if recent flow data cannot generate design flows. Regulation No. 43 provides residential, commercial, food service, institutions, and recreational wastewater estimated daily flow and BOD loads per person as planning factors used as estimates. These numbers in Regulation No. 43 are provided for guidance, and other factors can be used, provided they are identified within the Utility Plan. The 208 AWQMP recommends using 75 gallons/person/day residential wastewater flow factor. Site-specific data must calculate peak flow and the annual average daily flow ratio. The maximum monthly average daily per capita wastewater contribution must not be less than 75 gallons per capita per day (gpcd) or greater than 100 gpcd unless satisfactory justification is provided for using a lower or higher value. These numbers do not include I&I and should be considered in addition to the design numbers referenced above.

The 208 AWQMP also recognizes wastewater flow generated by employment, with the regional average at 50 gallons/employee/day. Generally, this 75/50 wastewater flow factor calculation provides a reasonable projection, and the numbers have been verified using the daily and monthly reports submitted to the Water Quality Control Division. Lacking employment data, a factor of 100-gallons/person/day as a residential equivalent can provide comparable projections within reason.

The Plan should delineate the design's average daily flow, peak hour flow rate, and the maximum month average flow (used for sizing). Refer to Regulation No. 43 – OWTS and WQCD Design Manual WPC-DR-1 for further direction on design values. Note that a maximum peaking factor of 5.0 (or less) is generally applied to small treatment systems or special-use sites (e.g., church camps, restaurants, day camps, RV parks). Supporting documentation should be provided and used to calculate the above hydraulic loading conditions. Where available, documentation must include at least three years of historical records. More extended data sets provide for improved statistical reliability and trending. If historical records are not available, report documentation must provide peaking factor assumptions (e.g., using accepted peaking formulas found in widely used and accepted engineering design references, adjusted as required to account for unique local or regional considerations, unusual flow variations, flow equalization) considerations of special events, I&I impacts, commercial and industrial contributions, seasonal change in water use volume, or other justifiable and documented events.

It is recommended that wastewater treatment plants be designed for 20-year periods and designed 20 percent greater than the projected 20-year design capacity. The 30-day maximum month, or annual average, typically represents the 20-year design capacity plus 20 percent—Document local population projections to generate wastewater flow forecasts and differences between regional and local predictions.

(c) **Future Design Loadings for Parameters of Concern.** As with flow, a similar process is used to determine the future loadings for organics, nutrients, and other parameters of concern; for example, it is found within the divisions' Water Quality Roadmap for the next 10-year period. Agencies should



consider TMDLs and 303(d) listed parameters from the TMDL Dashboard and 303(d) Stream Impairment Assessment Tool. The report may use typical engineering values if adequate data history is unavailable to project future loads. Unless otherwise justified, the source of typical engineering values must be referenced and compatible with Regulation No. 43 – OWTS and WQCD Design Manual WCP-DR-1.

#### **4. Future Interceptor or Lift Station Collection System Alignments.**

Future wastewater service plans for the WUSA, GMA, UPA, and future lift stations must be regionally coordinated and agreed upon between local DMOAs. These coordinated efforts are the 208 Planning mechanism included in the 208 AWQMP and give the Association the authority to decide future wastewater service to the region.

(a) Agencies shall provide or have a current **GIS shapefile layer** with the Association illustrating future sewer collection system sewer lines and interceptors' alignments and lift station locations depicting sewer line type and sizes of future sewer lines, interceptors, and lift stations.

(b) Provide a coordinated, agreed-upon regional **map of future interceptors and lift stations**, illustrating how the entity will provide sewer service to the entire Service Area (GMA & WUSA). The Map should show interceptor alignment with general line sizing. Illustrate future growth on the WUSA map and discuss whether the entity will file a Plan Amendment as a part of the planning process. Utility Plans must locate existing and planned lift stations to serve areas defined within WUSAs or located in GMAs, with the understanding that gravity sewers are preferred over lift stations for regional planning. Existing facilities and facilities to be built within two years should be shown at a specific location on the map. Identify any failing or proposed OWTS systems that have been recommended for consolidation. Future wastewater service plans for the WUSA, GMA, and UPA must be regionally coordinated and agreed upon between DMOAs.

(c) It is highly recommended that agencies explore and examine future interceptor and lift station collection system proposals or plans of approved Utility Plans for adjacent service areas to optimize regional wastewater collection services. As the information becomes available, it is also highly recommended that agencies utilize and view the Association's GIS sewer collection maps to coordinate and plan future WUSA, GMA, UPA boundaries, and sewer collection.

(d) The map discussed above should show future interceptors or lift station sites. If possible, the text should discuss the sizing range for the interceptors and lift stations. The (GIS) map must illustrate future land use and zoning and illustrate which regional DMOA will provide future wastewater services in the area of interest.

(e) **Construction Timeline.** The report should summarize all future collection system interceptors and lift stations or improvements, providing a generalized time frame for when these improvements might occur based on current planning and growth projections for the 20-year period. Provide cost estimates for future projects and construction improvements within five years. Projects or improvements within the next five years are defined as "near-term." Discuss if all current and future interceptors and lift stations were in use if the flow would overload the WWTF. If so, when will the receiving WWTF capacity be expanded to accommodate those flows?

(f) The Association encourages future interceptors or lift stations to be sized and constructed, considering long-term consolidation options.

- (g) Discuss **regionalization of future interceptors or lift stations** needed beyond the GMA/WUSA into the UPA area of the DMOA and whether or not those planned interceptors and lift stations meet the Association’s WUSA development standards.
- (h) Discuss **regional 208 planning** regarding future interceptors or lift stations needed in the UPA beyond the WUSA/GMA of the DMOA, **supporting how the project(s) are the best long-term regional alternative for 208 Planning.**

## SECTION V. RECEIVING STREAM WATER QUALITY

### 1. Watershed Identification.

Identify the watershed region and river basin for the service area and WWTF discharge(s).

(a) **Map of Watershed Basin.** Illustrate the effluent discharge location(s) within the identified segment(s) of the river basin in relation to the listed water quality impairments, if any.

(b) **Ambient Water Quality.** Identify the discharge point naming the receiving stream, river, surface water, or groundwater body segments. **Provide a map** identifying the receiving stream segment illustrating the discharge point. Document within the Utility Plan whether the receiving waterbody or any downstream waterbody is affected by the discharge, or is currently water quality limited by the current treatment facility or future proposed projects. DMOAs can demonstrate overloaded stream segments by calculating the stream segment's assimilative capacity. Utilize the previously provided 5-mile radius map identifying other DMOAs or WWTFs to consider impacts on downstream dischargers. The applicant is responsible for ensuring that it has considered any effects that change water quality-based standards may have on the water quality planning targets in their site location application and design for the proposed wastewater treatment works. Additionally, other factors can impact the applicability of water quality planning targets, such as changes in stream flows, new discharges to the segment, or ambient water quality. The report must consider the effects on downstream dischargers; the report should consider all parameters discharged or future discharge by the facility, studying effluent quality and quantity. Document if there is a potential for a water quality limited segment within the horizon planning period, modeling, or other water quality data demonstrating how the discharge(s) affect the water quality limited segment. This includes planning according to the division’s 10-year Water Quality Road Map and other regulation water quality target updates planned throughout the 20-year horizon. With division support, the Water Quality Control Commission assigns surface water quality standards protecting all uses. River segments or surface water bodies are given a combination of the five categories of use classifications: aquatic life, recreation, water supply, wetlands, or agriculture. Those protected use categories previously named are then measured and graded into five classified category standards to assess the water quality. Provide the river segments, WWTF and stormwater outfall(s), and the resulting protective uses and assessments within the Utility Plan.

The identified Stream Segment EPA classified uses and resulting assessments from the **Division’s Integrated Water Quality Monitoring and Assessment 305(b) Report**. Provide the Stream Segment’s EPA uses, classifications, and assessments, and **include it exactly as presented in Table 3**. Copy and paste the information directly from the 305(b) Report rather than recreating a table and the information as shown in the example below.

**Table 3 305(b) Stream Segment Listings Example.**

COSPMS01b\_A Mainstem of the South Platte River from a point immediately below the confluence with St. Vrain Creek to the Weld/Morgan County Line.

IR Category	Aquatic Life Tier	Recreational Tier	Miles
5. - 303(d) list	W2 - Class 2 Warm Water Aquatic Life	E - Existing Use	51.5
Aquatic Life Use	Recreational Use	Agriculture Use	Water Supply Use
F - fully supporting	N - not supported	F - fully supporting	N - not supported
Affected Use	Analyte	Category / List	Priority
Water Supply Use	Nitrate	3b. - M&E list	NA
Recreational Use	E. coli	5. - 303(d) list	H
Water Supply Use	Arsenic (Total)	5. - 303(d) list	L

Discharge quality controlled, or will be, by a water quality limited waterbody, must identify the constituent(s) of concern, and source identification of water quality limited designation (e.g., 303(d) list) needs to be included in the Utility Plan. The Utility Plan must identify any TMDL (concentration, poundage, or other alternatives) by constituent(s) as they apply to the treatment plant. Therefore, the Utility Plan should contain:

- The identified Stream Segment Classifications and Water Quality Standards from Regulation No. 31-38 Classifications and Numeric Standards for Surface Water Quality applying the correct River Basin Regulation.
- Provide the stream segment **Table Value Standards from Regulation 38 exactly as presented in Table 4**. Copy and paste the information directly from Regulation No. 38 rather than recreating a table and the information as shown in the example below.

**Table 4 Regulation 38 Stream Segment Table Value Standards, example.**

1b. Mainstem of the South Platte River from a point immediately below the confluence with St. Vrain Creek to the Weld/Morgan County Line.						
COSPMS01B Classifications		Physical and Biological			Metals (ug/L)	
Designation	Agriculture	DM	MWAT		acute	chronic
Reviewable	Aq Life Warm 1	WS-I	WS-I	Arsenic	340	---
	Recreation E	acute	chronic	Arsenic(T)	---	0.02
	Water Supply	---	5.0	Cadmium	TVS	TVS
Qualifiers:		pH	6.5 - 9.0	---	Cadmium(T)	5.0
Other:		chlorophyll a (mg/m <sup>2</sup> )	---	---	Chromium III	---
Temporary Modification(s):		E. coli (per 100 mL)	---	126	Chromium III(T)	50
Arsenic(chronic) = hybrid		Inorganic (mg/L)			Chromium VI	TVS
Expiration Date of 12/31/2024		acute	chronic	Copper	TVS	TVS
*Uranium(acute) = See 38.5(3) for details.		Ammonia	TVS	TVS	Iron	---
*Uranium(chronic) = See 38.5(3) for details.		Boron	---	0.75	Iron(T)	---
		Chloride	---	250	Lead	TVS
		Chlorine	0.019	0.011	Lead(T)	50
		Cyanide	0.005	---	Manganese	TVS
		Nitrate	10	---	Mercury(T)	---
		Nitrite	---	0.5	Molybdenum(T)	---
		Phosphorus	---	---	Nickel	TVS
		Sulfate	---	WS	Nickel(T)	---
		Sulfide	---	0.002	Selenium	TVS
					Silver	TVS
					Uranium	varies*
					Zinc	TVS

- For treatment plants that will not be built or expanded for ten (10) or more years, a general discussion of the parameters to be controlled and the availability of allocations for the waterbody are sufficient. Exact concentration or poundage estimates are unnecessary unless there is a conflict with an existing or anticipated TMDL within the planning horizon period.
- For wastewater treatment plants to be built or expanded within the next ten (10) years, a recommended treatment technology and treatment plant configuration to meet the projected discharge permit or Notice of Authorization limitations and a listing of alternative technologies for consideration is required. The Utility Plan must document that achieving the projected effluent water quality-based limits (permit) or water quality-based targets (PELs) is technically and economically feasible.
- For wastewater treatment plants planning on producing reclaimed treated wastewater, a recommended treatment technology and treatment plant configuration to meet the Notice of Authorization limitations and a listing of alternative technologies for consideration is required. The Utility Plan must provide documentation that achieving the projected Notice of Authorization standards is technically and economically feasible.

(c) Watershed Issues. Utility Plans should document any watershed programs and implementation strategies. Since the watershed protection approach is advocated in the 208 AWQMP, the Utility Plan will need to address how a wastewater management plan fits into the watershed program. Identify any 303(d) listings or M&E listings in the table below and discuss whether the Utility Plan projects further affect the water quality and may require identified listings to be TMDLs eventually. Information from Regulation No. 93 or the 303(d) Stream Impairment Assessment Tool or TMDL Dashboard referenced above is available. Provide the stream segment TMDLs from **Regulation No. 93 exactly as**

presented in Table 5. Copy and paste the information directly from Regulation No. 93 rather than recreating a table and the information as shown in the example below.

**Table 5 303(d) Stream Segment Impairments, example.**

COSPMS01b	1b. Mainstem of the South Platte River from a point immediately below the confluence with St. Vrain Creek to the Weld/Morgan County Line.		
Listed portion:	COSPMS01b_A Mainstem of the South Platte River from a point immediately below the confluence with St. Vrain Creek to the Weld/Morgan County Line.		
Affected Use	Analyte	Category / List	Priority
Water Supply Use	Nitrate	3b. - M&E list	NA
Recreational Use	E. coli	5. - 303(d) list	H
Water Supply Use	Arsenic (Total)	5. - 303(d) list	L

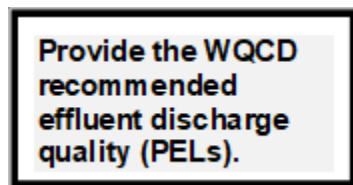
**2. 303(d) Impairments & Total Maximum Daily Loads Discussion.**

Utility Plans should document any current or anticipated TMDLs from Table 5. Check the receiving waters against the Water Quality Control Division’s 303(d) List (Regulation No. 93). Flow and loading forecast information should be coordinated with the division’s TMDL development group to inform the agency of any TMDLs in progress or anticipated within the planning horizon period of the Utility Plan. TMDL requirements can affect effluent limits and treatment options. From the impairments listed within Table 5, consider the following for those standards:

- (a) What parameters are listed as 303(d) impairments or TMDLs?
- (b) Why? Is it naturally occurring from nonpoint sources or point sources from human activity? Are the impairments treatable at the WWTF, by nonpoint source BMPs, or nonstructural BMPs?
- (c) What are the contributing factors?
- (d) Will the future loadings impair water quality, maintain, or improve water quality concerning the EPA protective use categories and assessments?
- (e) What are the suggested technologies or BMPs of correction?

**3. Future Level of Treatment Required.**

(a) **Preliminary Effluent Limits (PELs).** Provide a copy of the recommended water quality-based limits (PELs) document prepared by the WQCD in the appropriate appendix, as outlined within the checklist. The Utility Plan shall list the effluent discharge quality necessary to meet receiving water quality classifications and standards related to the PELs. Summarize the anticipated water quality targets for compliance for this evaluation and 20-year planning period.



(b) **Notice of Authorization.** Provide a copy of the NOA prepared by the WQCD in the appropriate appendix, as outlined within the checklist. The Utility Plan shall list the necessary NOA discharge parameters to meet reclaimed water quality classifications and standards. Summarize the anticipated water quality targets for compliance for this evaluation and 20-year planning period.

(c) **Water Quality Planning Targets.** Present a list of the expected discharge permit water quality planning targets (PELs) or NOA limitations based on state effluent or reclaimed water standards, receiving water classifications, and established water quality standards. Considering discharge quality necessary to meet any **303(d) listed impairments, TMDL wasteload allocations** listed or recognized in the 208 AWQMP for the horizon time-period identified in the plan and any other effluent limits recommended in the 208 AWQMP or necessary to meet state requirements.

(d) **10-Year Water Quality Road Map.** Present a list of the expected water quality-based limits concerning the regulation updates outlined within the WQCD's 10-year water quality roadmap. The Utility Plan shall list the necessary BMPs, BATs, or projects to meet the anticipated water quality-based limits outlined in the roadmap.

#### **4. Consideration for Modification of Standards.**

DMOAs may make recommendations in the report to consider modifying water quality-based limits, targets, impairments, or regulations. The proposed modification cannot impair stream segment water quality or affect other WWTFs on the stream segment. In conjunction with the Association and in coordination with the Division, the DMOA can present the recommendation to modify Regulation No. 93. Regulation No. 93 modifications can be parameters for the delisting of monitor and evaluation listing or impairment. In coordination with the division, consideration of changing Regulation No. 38 water quality standards may also be presented for recommendation at this time and adoption within the 208 AWQMP. Another option may be to consider obtaining a discharge-specific variance within Regulation No. 31 if it is demonstrated to be the last resort to be applied when/if none of the other regulatory tools are appropriate to obtain feasible WQBELs within the 20-year planning period. Understanding that DSVs should be based on 1) implementation of the best viable alternative(s) to make progress towards WQBELs over the long term, 2) achieving the highest attainable condition during the period of the variance, and 3) protecting the existing water quality conditions at the time of the adoption of the variance. DSV WQBELs will be based on the lowest stream flows available to establish the alternative effluent standards, i.e., DSV, which cannot further degrade stream classifications. The approved DSV represents the highest degree of protection of the classified uses feasible within the DSV period. DSVs are in effect only as long as necessary to achieve the highest possible effluent water quality that meets the discharge standards or DSV duration, including treatment optimization. Any agency that attempts to pursue modifications of effluent standards should be closely coordinated with the Division and documented.

## **SECTION VI. WASTEWATER TREATMENT & COLLECTION SYSTEM IMPROVEMENT ALTERNATIVES**

### **1. Development & Screening of Treatment & Collection System Improvement Alternatives.**

Utility Plans may only propose treatment or collection system improvements or a combination of improvements within the 20-year horizon concerning treatment, interceptors, and lift stations. Discuss or include all possible improvements for treatment, interceptors, and lift stations for the planning horizon period to minimize *costly* Utility Plan updates and ensure an effortless site application process.

(a) **Feasibility of Optimization of Existing Facility.** Discuss the feasibility of optimizing the existing facility's performance to meet future required water quality planning targets (PELs or NOA) presented in Section V above. System improvements should include designing considerations for future parameters of concern regarding future water quality-based limits and the division's Water Quality 10-year

Roadmap to fulfill Site Application requirements. This section should optimize performance to maintain or restore EPA water quality protective use standards. For interceptors or lift stations, discuss how the project(s) is the best long-term regional alternative for the watershed to maintain or restore water quality and is economically feasible for the general public.

(b) **Regional Partnerships or Consolidation as an Alternative.** Utility Plans are not a research project but rather a group project involving regional DMOAs collaborating on providing regional sewer service in a coordinated, agreed-upon effort. Do not go about consolidation alternatives alone; agencies must involve adjacent DMOAs, collaborate on alternative solutions, and thoroughly examine them. Above and beyond any state and federal requirements for Regulation No. 22 or SRF funding, the Association, as the CWA Section 208 Planning Agency for this region, is responsible for examining regional solutions for coordinating wastewater services and restoring water quality listed impairments. Any consolidation analysis must be consistent with the Water Quality Control Division policy on consolidation. Refer to Regulation No. 22 –Site Location & Design Guidance and WQCD Design Manual DR-1. Per Regulation No. 22, the Division must “encourage the consolidation of wastewater treatment works whenever feasible with consideration for such issues as water conservation, water rights utilization, streamflow, water quality or economics.” Consolidation potentially offers significant capital and operational cost savings through economies of scale, reduced points of failure that can lead to SSOs, and improved management and administration through shared resource availability. The Utility Plan should identify opportunities for wastewater treatment system consolidation. Utilizing local WUSAs and WWTPs within a 5-mile radius and the WUSA development standards, conduct a regional analysis concerning those associated DMOAs for opportunities for consolidation or partnerships.

(c) A **regional consolidation analysis** must include documented meetings with those WWTFs within the 5-mile radius map. The facility consolidation decision is determined in the Utility Planning process at the local level during meeting discussions. More extensive wastewater treatment facilities can often provide service more effectively while providing a higher degree of treatment than can be achieved through smaller treatment facilities. While extensive facilities do not always provide better water quality treatment, consolidation can eliminate smaller treatment facilities, which may not be financially capable of operating correctly and exceeding their discharge permit limits. Based on economics, cost-effectiveness, operations, water quality impacts, physical constraints (topography), and water rights. Discuss consolidation opportunities within and beyond the 20-year horizon as regional planning alternatives for WWTPs and modifications of WUSAs, GMAs, UPAs, and long-term planning to be documented within the 208 AWQMP. For example, does reducing an agency’s WUSA due to a planned lift station make sense, whereas a neighboring WUSA can serve the area by a gravity sewer line? Within the 20-year planning period and beyond, partnerships and consolidation options should consider population projections and stream segment water quality impairments above increasing treatment plant capacities. Consider providing partnerships and consolidation options above increasing treatment plant capacities when stream segments are overloaded by WWTPs that may further impact impairments. Along the same lines, economically, does it make sense to perform a costly plant expansion to upgrade a plant due to urbanization or route the service area flows to a plant with adequate capacity? Consolidation may also be based on differing stream segment assimilative capacities between agencies. For example, does it make sense to consolidate WWTFs based on which stream segment has more assimilative capacity for anticipated growth? Municipalities may consider capacity sharing, revenue sharing, and water quality trading as options for consolidation or within the alternatives analysis. Regional consolidation considerations must include documented intergovernmental agreements (IGAs) and meeting minutes from the treatment entities in the appendix, as outlined within the checklist. **Confirm regional consolidation decisions by public documentation**, including the reasons for or against, with meeting minutes by the involved agencies' decision-making authorities. The letters or meeting minutes should identify legally responsible personnel with decision-making authority (i.e., mayor, president/chair of the council/board, town or city council/board, public works

director, owner, corporate officer, other authorized officials, etc.) with the business, organization, or municipality.

Note a consolidation analysis should not be limited to the treatment works. Treatment entities may also benefit from consolidating portions of the overall treatment operations, such as solids treatment and handling or administrative duties. Consolidation should also explore water quality trading for water quality-based limits, parameters of concern, and river basin impairments. Partial consolidation of a DMOA's WUSA or treatment works is viable and must be considered part of each application's feasibility study and may improve or restore a stream segment impairments. The Weld and Larimer County Health Departments should also recommend replacing failing OWTs with service-to-collection systems and centralized treatment works.

Consolidation or partnership recommendations, or options, are long-term solutions that can be recommended outside the current 20-year planning period as Horizon Goals. Agreeing DMOAs may have the foresight that consolidation is the best option but don't know how to get there. Highlighting these goals as Horizon Goals outside the 20-year planning period may direct current and future decision-makers to work towards consolidation where and when feasible. Just because a current WWTF exists does not mean consolidation is not an option at the end of the WWTF anticipated life cycle. Whereas Utility Plans delineate 20-year planning periods, regional Section 208 Planning may outline 20, 30, 40, and even 50-year planning period recommendations in the regional 208 AWQMP. The Association encourages DMOAs to examine and recommend consolidation and partnership options beyond the current 20-year planning period or life cycle of treatment facilities to optimize service areas and treatment facilities considering the regional water quality benefits. Making those recommendations now in the Association 208 AWQMP will require DMOAs to thoroughly examine partnership and consolidation options frequently. Additionally, making those recommendations allows DMOAs to size future treatment and collection system infrastructure to accommodate the consolidated flows and loads. Consolidation or partnership recommendations in Utility Plans are a 208 Planning mechanism adopted in the 208 AWQMP that gives the Association the authority to make decisions regarding future wastewater treatment, collection, and service to the region.

At the request of DMOAs, the Association, as the 208 Planning agency, can facilitate consolidation discussions. The following section is the Association's Consolidation Policy adopted into the regional 208 AWQMP.

#### **A. 208 AWQMP Consolidation Policy (2022)**

In evaluating the suitability of a proposed site for a domestic wastewater treatment facility, the WQCD must consider any approved regional wastewater management plan for the designated area. State law encourages the consolidation of wastewater treatment facilities as part of the approval process. Do not go about consolidation alternatives alone, agencies must involve others and collaborate on alternative solutions and examine them thoroughly. At the request of a Designated Management and Operation Agency (DMOA) the Association will facilitate consolidation meetings. In agreement with Regulation No. 22 Implementation Policy, Consolidation analysis; if it is demonstrated to the satisfaction and the parties involved that any one of the following factors would make consolidation infeasible, no further investigation of consolidation is required.

**Not limited to which DMOA is consolidated. The most common response to consolidation is "Consolidation is not feasible at this time." A thorough consolidation examination and analysis answers the fundamental question, "When is consolidation feasible then?" Including DMOAs providing consolidation recommendations to consolidate or for consolidating other DMOAs regionally. Understanding Utility Plans projects and planning recommendations are adopted into the**



**regional 208 planning process. Even though Utility Plans are typically 20-year planning periods consolidation recommendations could be beyond planning horizons. Including providing a chosen mechanism for how the regional DMOAs within a 5-mile radius will keep exploring consolidation in and beyond the 20-year planning period and provide periodic reports to the Association documenting activities and outcomes.**

The Association requires the following subjects be thoroughly examined and followed within the Utility Plan report considering regional (DMOA) partnerships or consolidation with the final decision and recommendations being approved by a public process:

**1. WUSA Consolidation or subdivision**

WUSA consolidation and partnership options must be thoroughly assessed considering long-range WUSAs and GMAs to optimize service areas. As adjacent WUSAs or GMAs boundaries encroach or meet, the economic feasibility of service area consolidation improves over more costly treatment facility capacity increases to serve the same local area population. Overloaded collection systems or treatment facilities should consider subdividing their WUSA with local DMOAs with suitable treatment capacity. DMOAs that can provide the same area sewered service by gravity should also be considered to eliminate current or future planned lift stations. Non-urban areas where collection systems are to be constructed should be constructed and sized considering long-term consolidation options. The Association prefers and encourages WUSA partnerships or consolidation for DMOAs within a 5-mile radius over creating additional WWTFs, and gravity sewers over lift stations. DMOAs have a duty and responsibility to evaluate the best regional solutions for collections systems under the CWA Section 208.

**The Project shall be reasonably necessary to meet projected community development and population demands in the areas to be served by the Project, or to comply with regulatory or technological requirements.** The determination of whether the Project is reasonably necessary may include but is not limited to the following considerations:

- a. Relationship to reasonable growth projections and local land use plans.
- b. Relationship to other water and wastewater provider's service area.
- c. Whether the Project is not in compliance with regulatory or technological requirements or will not be in compliance in the near future.

**2. Treatment Consolidation or Partnership within a 5-mile radius of WWTFs**

Larger wastewater treatment facilities can often provide service more effectively while providing a higher degree of treatment than can be achieved through smaller treatment facilities. Consolidation potentially offers significant capital and operational cost savings through economies of scale, reduced points of failure that can lead to SSOs, improve effluent water quality, and improved management and administration through shared resource availability. Based on rates, economics, cost-effectiveness, operations, water quality impacts, physical constraints (topography), and water rights. The Association prefers and encourages WUSA partnerships or consolidation for DMOAs within a 5-mile radius over creating additional WWTFs, and gravity sewers over lift stations. DMOAs have a duty and responsibility to evaluate the best regional solutions for treatment systems under the CWA Section 208.

**The Project will not result in excess capacity in existing water or wastewater treatment services or create duplicate services.** The determination of whether the Project will result in excess capacity or create duplicate services may include but is not limited to the following considerations:

- a. Whether the Project creates overlapping or competing service areas.
- b. Whether the Project differs significantly from the provider's facility plan.
- c. Whether the Project impacts other water and wastewater permits.

**To the extent feasible, wastewater and water treatment facilities shall be consolidated with existing facilities within the area.** The determination of whether consolidation is **feasible** shall include but is not limited to the following considerations:

- a. Whether there is an opportunity for consolidation.
- b. The environmental, financial and social feasibility of consolidation.

**New domestic water and sewage treatment systems shall be constructed in areas which will result in the proper utilization of existing treatment plants and the orderly development of domestic water and sewage treatment systems of adjacent communities.** The determination shall include but is not limited to the following considerations:

- a. Relationship to reasonable growth projections and local land use plans.
- b. Proximity to other water and wastewater provider's service area.

### **3. Population Projections of DMOAs within a 5-mile radius**

Discuss consolidation opportunities within and beyond the 20-year horizon period as regional planning alternatives for WWTFs and modifications of WUSAs to be documented within the 208 AWQMP. As population projections demonstrate pinch points, overloaded collection systems or treatment facilities should consider subdividing their WUSA with local DMOAs with suitable treatment capacity. WUSA consolidation opportunities should examine the portion of the UPA boundary beyond the GMA or WUSA currently anticipating consolidation opportunities beyond the 20-year planning horizon. Map and description of other municipal and industrial water projects in the vicinity of the Project, including their capacity and existing service levels, location of intake and discharge points, service fees and rates, debt structure and service plan boundaries and reasons for and against hooking on to those facilities.

- a. Description of existing domestic water and wastewater treatment facilities in the vicinity of the Project, including their capacity and existing service levels, location of intake and discharge points, service fees and rates, debt structure and service plan boundaries, and reasons for and against hooking on to those facilities.
- b. Description of how the Project will affect urban development, urban densities, and site layout and design of stormwater and sanitation systems.
- c. Description of other water and wastewater management agencies in the Project area and reasons for and against consolidation with those agencies.
- d. Description of how the Project may affect adjacent communities and users on wells.

### **4. Assimilative Stream Segment Capacity Comparison of DMOAs within a 5-mile radius**

Within the 20-year planning period and beyond, partnerships and consolidation options should consider population projections and resulting stream segment assimilative capacity projections at 5, 10, 15, & 20-year intervals. Overloaded stream segments and WWTPs (85-95%) should consider partnerships and consolidation options above increasing treatment plant capacities. The Association prefers and encourages consolidation or partnerships above increasing treatment plant capacities within a 5-mile radius. DMOAs have a duty and responsibility to evaluate the best regional solutions to protect, maintain, or restore water quality under the CWA Section 208.

## 5. Surface Water Quality

Map and/or description of all surface waters to be affected by the Project, including:

- a. Description of provisions of the applicable regional water quality management plan that applies to the Project and assessment of whether the Project would comply with those provisions.
- b. Existing data monitoring sources.
- c. Descriptions of the immediate and long-term impact and net effects that the Project would have on the quantity and quality of surface water under both average and worst-case conditions.

**The Project will not significantly degrade surface water quality.** The determination of effects of the Project on surface water quality may include but is not limited to the following considerations:

- a. Changes to existing water quality, including patterns of water circulation, temperature, conditions of the substrate, extent and persistence of suspended particulates and clarity, odor, color or taste of water.
- b. Applicable narrative and numeric water quality standards.
- c. Changes in point and nonpoint source pollution loads.
- d. Increase in erosion.
- e. Changes in sediment loading to waterbodies.
- f. Changes in stream channel or shoreline stability.
- g. Changes in stormwater runoff flows.
- h. Changes in trophic status or in eutrophication rates in lakes and reservoirs.
- i. Changes in the capacity or functioning of streams, lakes or reservoirs.
- j. Changes in flushing flows.
- k. Changes in dilution rates of mine waste, agricultural runoff and other unregulated sources of pollutants.

## 6. Ground Water Quality

Map and/or description of all groundwater, including any aquifers. At a minimum, the description should include:

- a. Seasonal water levels in each subdivision of the aquifer affected by the Project.
- b. Artesian pressure in aquifers.
- c. Groundwater flow directions and levels.
- d. Existing aquifer recharge rates and methodology used to calculate recharge to the aquifer from any recharge sources.
- e. For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of aquifer to impound groundwater and aquifer storage capacity.
- f. Seepage losses expected at any subsurface dam and at stream-aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.
- g. Existing groundwater quality and classification.
- h. Location of all water wells and their uses.
- i. Description of the impacts and net effect of the Project on groundwater.

**The Project will not significantly degrade groundwater quality.** The determination of effects of the

Project on groundwater quality may include but is not limited to the following considerations:

- a. Changes in aquifer recharge rates, groundwater levels and aquifer capacity including seepage losses through aquifer boundaries and at aquifer-stream interfaces.
- b. Changes in capacity and function of wells within the impact area.
- c. Changes in quality of well water within the impact area.

**7. Water Quantity**

- a. Map and/or description of existing stream flows and reservoir levels.
- b. Map and/or description of existing Colorado Water Conservation Board held minimum stream flows.
- c. Descriptions of the impacts and net effect that the Project would have on water quantity.
- d. Statement of methods for efficient utilization of water.

**8. Floodplains, Wetlands, and Riparian Areas**

- a. Map and/or description of all floodplains, wetlands, and riparian areas to be affected by the Project, including a description of the types of wetlands, species composition, and biomass.
- b. Description of the source of water interacting with the surface systems to create each wetland (i.e., side slope runoff, over-bank flooding, groundwater seepage, etc.).
- c. Description of the impacts and net effect that the Project would have on the floodplains, wetlands and riparian areas.

**The Project will not significantly degrade wetlands and riparian areas.**

The determination of effects of the Project on wetlands and riparian areas may include but is not limited to the following considerations:

- a. Changes in the structure and function of wetlands and riparian areas.
- b. Changes to the filtering and pollutant uptake capacities of wetlands and riparian areas.
- c. Changes to aerial extent of wetlands and riparian areas.
- d. Changes in species' characteristics and diversity.
- e. Transition from wetland to upland species.
- f. Changes in function and aerial extent of floodplains.

**9. Regional DMOA Credit Trading.**

Partnerships and consolidation options may include water quality trading credits for water quality-based permitted limits, parameters of concern, and assimilative capacity. As population and loading projections demonstrate water quality-based limit pinch points, overloaded stream segments should consider credit trading with local DMOAs with suitable treatment or assimilative capacity.

**10. CIP Economic Feasibility Studies of DMOAs within a 5-mile radius.**

Within the 20-year planning period and beyond, DMOA CIP projects must provide economic feasibility studies compared to consolidation and partnership options for DMOAs within a 5-mile radius. DMOAs have a duty and responsibility to evaluate the best regional solutions to ensure that present and future wastewater needs are financially feasible for the general public as ratepayers under the CWA Section 208. Economic Feasibility. The Term Economic Feasibility goes beyond the upfront capital cost of the project being considered. Economic Feasibility should include the long-term maintenance and operation costs of

the project as well as the financial burden on ratepayers and residents. The Financial burden includes the existing tax burden and fee structure for government services including but not limited to assessed valuation, mill levy, rates for water and wastewater collection and treatment, and costs of water supply. Thus, the project's net effect is the residents' financial burdens and is to be considered part of the Economic Feasibility of projects. Beyond the financial burden of the ratepayers and residents the project should consider the impacts on the local economy. Description of the local economy including but not limited to revenues generated by the different economic sectors, and the value of productivity of different lands. Local economic impacts and net effects of the project on the local economy and opportunities for economic diversification can be illustrated by examining regional opportunities for consolidation.

**11. User Rate Studies of DMOAs within a 5-mile radius.**

Within the 20-year planning period and beyond, including the known ratepayer DMOA increases provided here within, provide ratepayer economic feasibility studies compared to consolidation and partnership options for DMOAs within a 5-mile radius. DMOAs have a duty and responsibility to evaluate the best regional solutions to ensure that present and future wastewater needs are financially feasible for the general public as ratepayers under the CWA Section 208.

**12. Consolidation Record of Public Participation.**

Provide a discussion of public meetings, dates, and public hearings, including a general review, comment, and approval component. If a public hearing was held to consider partnerships or consolidation, provide minutes of that meeting in the appropriate appendix as outlined within the checklist, including the economic feasibility options presented for consideration during the public hearing. Confirm regional consolidation decisions, including the reasons for or against, with meeting minutes by the involved agencies' decision-making authorities. Meeting minutes should identify legally responsible personnel with decision-making authority (i.e., mayor, president/chair of the council/board, town or city council/board, public works director, owner, corporate officer, other authorized officials, etc.) with the business, organization, or municipality. The Association and its member DMOAs aspire to be a highly respected regional leader resolving wastewater regional water quality planning issues. DMOAs are a source of reliable information and data utilizing the administrative public comment and decision process. This Association's vision cannot happen without public participation.

- a. In the event that multiple attempts have been made to engage DMOAs, provide documentation and timelines in which those DMOAs have declined to participate in consolidation discussions.

To facilitate 208 Regional Planning thoroughly and effectively, the Association also requires the Consolidation analysis of Regulation No. 22 be included within Utility Plans.

Per Regulation No. 22 Implementation Policy, Consolidation analysis:

If it is demonstrated to the satisfaction and the parties involved agree that any one of the following factors would make consolidation infeasible, no further investigation of consolidation is required.

**13. Water Conservation.**

If the consolidation of treatment works would preclude reuse opportunities for new or existing treatment works or otherwise impair the conservation efforts of the new or other affected treatment works, the Utility Plan must include supporting evidence exploring water conservation.

**14. Water Rights Utilization.**

If the consolidation of treatment works would alter the discharge of effluent in a manner that would impair the water rights of one of the parties to the consolidation, the Utility Plan must include supporting evidence when determining water rights utilization.

**15. Stream Flow.**

The Utility Plan shall consider potential situations where another treatment works discharges to a higher flow stream/river, and consolidation would allow both treatment entities to take advantage of the associated assimilative capacity. On the other hand, if the consolidation of treatment works would alter flows in a stream or stream segment or transfer a sufficient amount of water to another stream or stream segment to result in (1) overwhelming adverse environmental effects on either stream, or (2) the lowering of the effluent limits of other treatment works to cause the need to install additional, advanced secondary or tertiary treatment processes, the Utility Plan must document this analysis.

**16. Water Quality.**

When analyzing the factors associated with water quality, the Utility Plan shall consider such things as the water quality-based designation and classification (i.e. recreation, agricultural, aquatic life, domestic water supply, and wetlands) of a stream segment along with any associated stream standard, whether the stream segment is an impaired water and the associated impairment, and the groundwater classification and associated standards. Based upon these factors, the Utility Plan shall weigh any potential degradation and take into consideration the ability of the stream segment or state waters to assimilate the pollutants. Given the assimilative capacity of each receiving water source and where consolidation would result in an incrementally greater degradation to the surface water and/or groundwater quality. The Utility Plan must include supporting evidence exploring the benefits or affects of water quality due to consolidation.

**17. Economics.**

Unless another factor contained in these criteria results in a determination that consolidation is not feasible, an analysis comparing the cost of consolidating the treatment works versus the cost of constructing a separate treatment works must be prepared and included in the Utility Plan. The analysis must include the following costs: land acquisition, capital construction (including unique expenses such as flood proofing, water rights compliance, wetland mitigation, etc.), interceptors and lift stations, treatment plant expansion and/or upgrade, debt retirement expenses, and operation and maintenance (O&M) costs for a minimum period of 20 years for each alternative. Other unique costs that are specific to one or more of the alternatives under consideration may also be appropriate for inclusion (value of water reuse by the agency or through sales to another party, etc.). Cost comparisons must be made on the basis of cost per 1,000 gallons of wastewater treated, as well as the present net worth. If the cost of consolidation exceeds the cost of separate plant construction by more than 30 percent, no further analysis of consolidation is required. The Utility Plan must include correspondence or meeting minutes from the treatment entities acknowledging discussion of consolidation and the cost comparisons.

If after evaluating the previous factors (1-5) and consolidation must still be considered, the Division expects that the following factors (6-9) will also be considered as part of the consolidation analysis. As is the case with the previous factors, if it is demonstrated to the satisfaction of the Division that any one of the following factors would make consolidation infeasible, no further analysis of consolidation is required.

**18. Service Area.**

If the site location or service area of a proposed treatment works is within the service area (as defined in an adopted local comprehensive plan or approved 208 plan) of a another municipality providing wastewater treatment service, the applicant (for site location of the proposed project) should be that municipality, and the application should provide for consolidation of either treatment works or management and operation of separate treatment works by the single municipality. If this is not the case for the proposed project, the application should clearly address the reason(s) for the departure from this expectation. If the local management agencies (in the case of an adopted local comprehensive plan) and/or the 208 designated planning agency are amenable to amendment of the adopted/approved plans to address the project as proposed, please include the associated documentation (indicating willingness to amend) from the associated agencies. The Utility Plan must explore the consolidation of Service Areas if the proposed project is within the Service Area of another municipality, management, or operation agency within the 208 Plan.

**19. Distance.**

If the distance to the closest existing/proposed treatment works, or from a sewer line capable of carrying the proposed flows to an existing treatment works, is less than five (5) miles, an analysis of the cost-effectiveness of consolidation with that treatment works must be included in the Utility Plan. If the distance is five (5) miles or greater, no further analysis of consolidation is required.

**20. Threatened or Endangered Species.**

If threatened or endangered species inhabit or utilize the only site that could be utilized for a consolidated treatment works or a site through which interceptor lines would need to be installed to reach a consolidated treatment works, no further analysis of consolidation is required, but the Utility Plan must include supporting evidence.

**21. Local Plans.**

In the event that the approved (NFRWQPA) 208 plan acknowledges the existence of, or a proposal for multiple treatment works and recommends that no consolidation of these treatment works occur, or if consolidation is in direct conflict with a specific recommendation of a municipality's comprehensive plan or an approved 208 plan, and the entity responsible for the development of the respective plan recommends against consolidation, the Association waives the requirement for analysis of consolidation for those identified within 208 Plan for future consolidation or those identified infeasible for consolidation. However, the inclusion of multiple facilities in the water quality management plan does not constitute a recommendation of no consolidation. The Utility Plan needs to include a discussion of the approved 208 plan and/or long range comprehensive plan.

(d) **Alternatives for Wastewater Reuse Opportunities.** The Utility Plan should explore any opportunities for wastewater reuse for non-potable uses, future potable use, or as a method for additional pollutant removal. The Utility Plan should identify those situations where reuse can fulfill water rights and augmentation plans. The Utility Plan should identify any reuse considerations in the alternative analysis. If reuse is not an option, this should be clearly stated in the Utility Plan documents. Reuse opportunities should consider strategies to treat all types of water rights. Considering all water rights currently received within the WUSA or could be received in the GMA in the future by potable water providers as sewerage and how those water supplies will be managed.

Reuse is an efficient means of preserving water resources in areas where those resources need to be protected. Reuse for augmentation purposes should be carefully reviewed, considering downstream water supplies and the potential health and environmental hazards. Determine the reuse quantity and quality of wastewater during the planning process, including how differing water rights will be managed, treated, reused, or augmented. The Utility Plan should present the quantity of reclaimed water produced for reuse and document the amount to be augmented and the resulting load reductions on the WWTF and the river segment or basin. This aligns with the ONE Water concept; management agencies need to consider the future possibilities of treating wastewater to drinking water standards as urbanization makes a limited resource more valuable.

(e) **Treatment or Collection System Alternatives (New System or Upgrading)**. Discuss alternatives for meeting future treatment requirements, including new or upgraded facilities or an additional load received by proposed/future planned interceptors or lift stations. An alternative analysis typically involves three alternatives. However, there are occasions where the system or project is relatively new and just needs to be upgraded with the next planned phase, in which case it is essentially the only alternative. A general description of each option should be provided, containing sufficient information to differentiate each other. Non-urban areas where collection systems are to be constructed should be constructed and sized considering long-term consolidation options. Include those projects within the plan of correction for excessive I&I.

## **2. Treatment, Collection System, Evaluation Matrix.**

The Utility Plan needs to provide alternative analyses for proposed new or upgraded wastewater treatment works, interceptors, lift stations, or impairment BMPs. The Utility Plan may present a combination of improvements concerning treatment, interceptors, lift stations, and water quality impairment BMPs. As discussed below, the Utility Plan must list the criteria for selecting a preferred alternative. The chosen alternative should include a public review and comment component in the appendices as outlined in the checklist. **Treatment alternatives evaluation should consist of:**

- (a) Alternatives Monetary Costs:
  - (i) Capital Costs.
  - (ii) Annual Operation & Maintenance (O&M) Costs.
  - (iii) 20-Year Present Worth Valuation.
- (b) Regional Partnerships and Consolidation Cost Assessments.
- (c) Alternatives Energy costs comparisons.
- (d) Alternatives Performance concerning the permit, PELs, or NOA compliance.
- (e) Alternatives Performance concerning the EPA's protective use categories and assessments.
- (f) Ease of Implementation (Constructability).
- (g) Environmental Issues: (Wetlands, Floodplain, Soils, etc.).

***Wetlands** – The Association supports the concept of wetlands protection, and all NFRWQPA plans will recognize the importance of wetlands as part of the planning process. Wetlands can have ecological and societal values, making them an essential regional resource. In recognition of this regional concept, the Association adopted the following position.*



**The adopted regional wetland policy states ... no net loss of wetland functions within the NFRWQPA region.**

*The Association wetland policy is: no net loss of wetland functions should occur within the region, and cost-effective use of wetlands in urban design should be encouraged. Development within a designated or delineated wetland should occur only when no other alternative exists. Wetland mitigation should consist of replacement wetlands of a similar type and quality, as determined by appropriate scientific analysis, which results in an equal (at the minimum) replacement of lost wetland functions. Wetland replacement within the same hydrologic watershed is the preferred compensatory mitigation measure as defined in the 208 Plan.*

### **3. Selection of Treatment and/or Collection Alternatives.**

A final treatment or collection alternative option, or options, must be selected and included in the report to be accepted for review and membership consideration. The Association will not accept Utility Plan reports for review without selecting a definitive treatment or collection alternative, including the topics below (updated 1-20-21).

Document the matrix analysis used to compare the alternatives regarding monetary and non-monetary factors. The resulting study provides the selected option, cost, and construction schedule timeline. The report should justify the selection and discuss this process. The Association discourages the naming of specific manufacturers, sizing, or other engineering considerations in this process for the option selected.

(a) **Alternative Plan Selection Matrix or Other Process.** Discuss each alternative's cost comparisons, rate studies, and non-monetary factors. The Matrix must include an explanation or justification for selecting more expensive treatment options over less costly treatment or consolidation options.

(b) **Selected Treatment or Collection System Improvements Description.** For the chosen alternative option, describe the treatment or collection system improvements in more detail and discuss:

- i. Best Available Technology (BAT)
- ii. Current & future wastewater treatment/collection capabilities.
- iii. Biosolids Treatment and Solids Management Plan.
- iv. Does the selected option protect, maintain, or restore the river basin's impairment listings?
- v. Was the Selection an integrated planning process with other regional DMOAs?

“Green” refers to alternative technologies resulting in water or energy efficiencies for the treatment facilities. The Utility Plan should explore green elements and identify those opportunities where green features have been installed or planned for installation. In the Utility Plan, state if green technologies are not an option. Projects seeking Clean Water State Revolving Fund support must direct a portion of their capitalization grant towards projects that address green infrastructure, water efficiency, energy efficiency, or other environmentally innovative activities. These green elements might include such things as:

- vi. Green Elements incorporated into the project.
  - Installing or retrofitting water-efficient devices
  - Installing energy-efficient technology:

- Cogeneration
- Renewable energy projects:
  - Solar power
  - Wind power
  - Biodiesel production
  - Enhanced production of biogas
- Energy management planning
- Technologies that achieve a 20% reduction in energy consumption
- Equipment and collection system upgrades, including:
  - Installing variable-frequency drives
  - Upgrading to energy-efficient motors and motor systems
  - Heating, cooling, lighting, and ventilation system upgrades
- Collection system I&I detection equipment
- Construction of US Building Council LEED-certified building or renovation of an existing WWTF building
- Reuse facilities
- Water Quality Trading
- Nonstructural BMPs

Agencies can find more information on sustainable water infrastructure at <https://www.epa.gov/sustainable-water-infrastructure>.

(c) **Emergency Standby Power System.** Discuss provisions for providing power under emergency conditions, including the selected alternative plan's automated control and alarm notification system. Describe the emergency operating sequence for the facility in the event of power failure, flood, or another catastrophic event. What backup plans have been put in place to maintain adequate operation? All lift stations and treatment facilities must have backup emergency power and remote alarm telemetry. In the case of privately-owned lift stations, provide arrangements that have been documented and agreed to regarding SSO events.

(d) **Odor Control Considerations.** Odor control should be essential to the system design and the selected alternative plan. The Utility Plan should include any odor control studies, strategies, or abatement programs of the selected alternative plan. Some wastewater treatment facilities are required to meet odor control regulations. Provide a copy of the Odor Plan or Study in the appropriate appendix outlined in the checklist.

(e) **Air Quality requirements.** Wastewater treatment plants are stationary sources; consequently, wastewater treatment plants with a design capacity of 10 MGD or greater may require an air quality permit. The Water Quality Control Division should be contacted for air quality permitting requirements. The Utility Plan should identify any air quality permitting requirements and provide a copy in the appropriate appendix outlined within the checklist of the selected alternative plan, if applicable.

(f) **Site Stormwater Management Plan.** The WQCD may require Some wastewater treatment plants to prepare a stormwater management plan as part of the stormwater permitting requirements. This stormwater management plan permit is for the plant site's general operation. It is separate from a Construction Stormwater permit, which may also be required for new construction or other construction activities for facility improvements, including interceptors and lift stations. The Water Quality Control Division should be contacted for stormwater permitting requirements. The Utility Plan should

include the approved stormwater management plan or stormwater construction permit in the appropriate appendix as outlined within the checklist of the alternative option selected, if applicable.

(g) **Site map.** From the existing site map and schematic or the collection system maps provided in previous sections, highlight the selected alternative plan(s) to be added for improvements. Provide a site layout map and schematic of the system, including a flow diagram with all feed and waste streams, including how the waste streams are disposed of or managed.

(h) **Site Characteristics.** The site approval process for new wastewater treatment works, interceptors, and new lift stations requires evidence of the site's suitability. The site must take into consideration floodplains and other natural hazards. Specifically, the Utility Plan must identify flood hazards and geological suitability issues related to the proposed site (or site envelope) and the measures to mitigate any identified problems or risks. A soil testing report should be included in the appendix, as outlined within the checklist for all new site locations.

**The utility plan must include location of treatment works (site footprint) and related infrastructure.**

(i) **National Environmental Protection Act (NEPA) Components.** If a wastewater provider intends to apply for a state-revolving loan, the National Environmental Protection Act (NEPA) requirements apply to the planning and review process (40 CFR, Parts 1500-1517). Integrating the NEPA process early in the planning stages ensures that decisions reflect environmental values, avoid potential delays later, and reduce conflicts. The NEPA process can result in preparing an Environmental Assessment or an Environmental Impact Statement. The Utility Plan should reference any NEPA processes that are or may be required to implement the wastewater management strategy of the alternative plan selected, if applicable.

(j) **Record of Public Participation in the Plan Selection Process.** Provide documentation of public meetings, dates, and public hearings, including a general review, comment, and approval component. To use SRF funds, provide meeting minutes in the appropriate appendix as outlined within the checklist of the alternative plan selected. Meeting minutes should identify legally responsible personnel with decision-making authority (i.e., mayor, president/chair of the council/board, town or city council/board, public works director, owner, corporate officer, other authorized officials, etc.) with the business, organization, or municipality. The Association and its member DMOAs aspire to be highly respected environmental stewards resolving water quality impairments and regional wastewater 208 planning issues. DMOAs are a source of reliable information and data utilizing the administrative public comment and decision process. This Association's vision cannot happen without public participation. These public decisions documented in Utility Plans are a 208 Planning mechanism adopted in the 208 AWQMP and give the Association the authority for decisions regarding future wastewater treatment, collection, service area planning, and foster water quality improvements in the region.

## **SECTION VII. DMOA MANAGEMENT AND FINANCIAL PLAN**

### **1. Wastewater Management Plan.**

Provide a table of the management agency's key contact(s) in the Utility Plan. The Utility Plan must identify the management agency, associated watershed association, if applicable, and operating agency(ies), along with applicable management agency agreements or other memorandums of understanding. The Utility Plan should also reference special control regulations or other water quality regulations specific to the WUSA or GMA. The Utility Plan may need to list any special rules or regulations applicable to the service area, external service contracts, and other operational or management agreements.

(a) **Management Structure.** Describe the organizational structure of the entity (city, town, or District), and indicate whether it is a management agency (land use), or operational agency (operations only), recognized in the approved 208 AWQMP. Summarize the ordinances under which the system is controlled.

(b) **Provisions for Operation and Maintenance.** Discuss who will operate the system and what level of operator license will be required by the State. Describe the entities' ability to hire and maintain operations staff for the conveyance and treatment facilities. If the entity is to contract operations to others, discuss the requirements and legal arrangements made and the entity's ability to pay for those services. Privately-owned lift stations must provide standard operation procedures (SOPs) for operation, maintenance, and emergency procedures (SSOs), including the operator in responsible charge and qualifications.

(c) **Provide a Construction Implementation Schedule for the Project(s).** Provide an estimated schedule of events through project start-up with target dates as they are currently planned, such as:

- i. Utility Plan Approval
- ii. Site Application Approval
- iii. Design Approval
- iv. Bidding Date
- v. Construction Completion Date
- vi. Project Start-Up

## **2. Arrangements for Implementation.**

The Association recognizes that executed rights-of-way, easements, and/or temporary construction easements are essential elements for the design and construction of Site Improvements per Regulation No. 22 (WQCD, November 12, 2020). While the Association may not perform a "completeness review" of easements and rights-of-way, it is the obligation of Applicants to attest to having secured or being substantially complete with securing executed easements to proceed with construction. The Association may, at their discretion, issue approval for a Site Application prior to, or in lieu of, full and complete executed rights-of-way and/or easements. Applicants shall submit all right-of-way and easement documentation with Site Applications including all executed agreements, letters of intent, and which properties require condemnation or are in the condemnation process. Given the Division's authority within Regulation No. 22 ensuring project easements are obtained (or executed) before site location approval or construction, the Association may approve Site Applications with unexecuted easements on a case-by-case basis in exchange for an Applicant's attestation of legal authority to construct.

(a) **Control of Site-Ownership Documentation.** Provide documentation of Site Ownership (Deed or Title) in the appropriate appendix as outlined within the checklist.

(b) **Intergovernmental Agreements (IGAs).** Provide copies of Intergovernmental Agreements (IGAs) as required for this Utility Plan or previous IGAs that are still active going forward. IGAs must be included in the appropriate appendix, as outlined within the checklist.

## **3. Financial Management Plan.**

Wastewater treatment agencies need a financial management plan that addresses, at the minimum, the following items:

- Financials must show all revenue and expenses (CIPs, M&O), including user rates and PIFs, increases for the 20-year Horizon period or longer.
- financial solvency should project growth,
- institutional arrangements to guarantee payment of charges from large connectors (over 10 percent of the projected revenue) and other governmental connectors,
- interest in applying for a state-revolving loan to finance any infrastructure or improvements,
- significant industrial user(s) under pretreatment regulations, financial arrangements for meeting pretreatment responsibilities,
- industrial or commercial sewer connections with the potential to overload the treatment plant hydraulically or with organic loading, a description of the financial methods for managing those waste loads, and

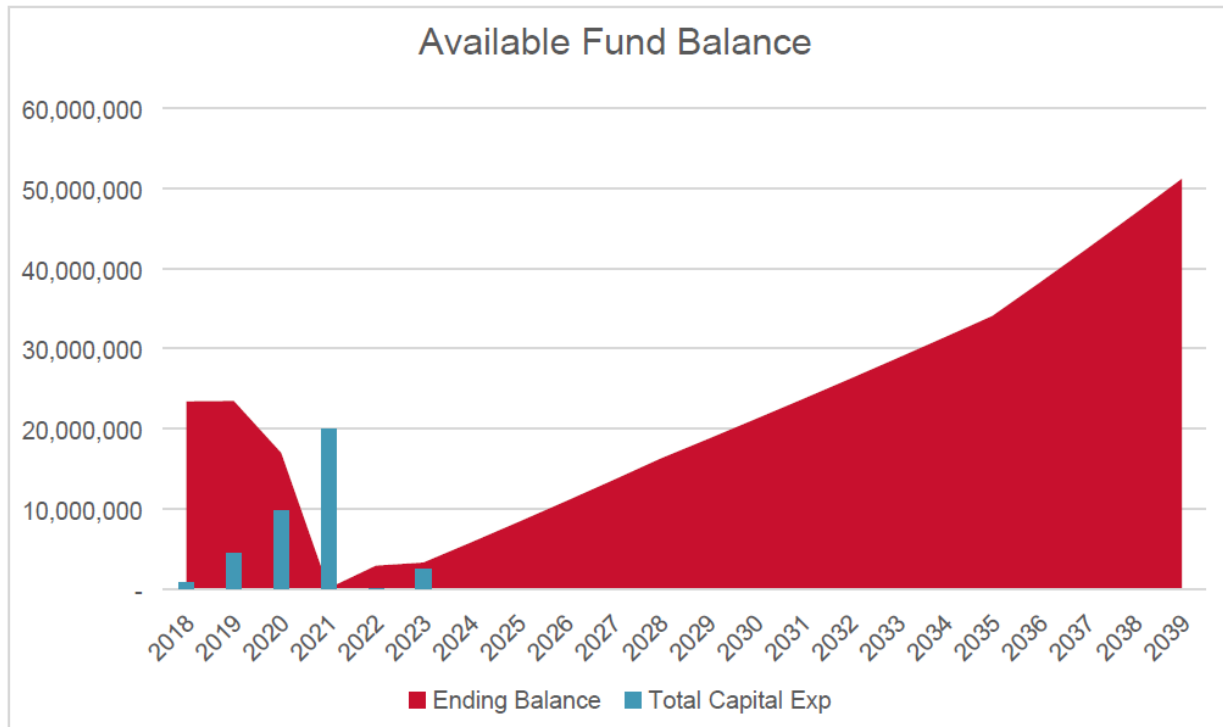
(a) **Financing for Proposed Project.** Discuss the proposed method of financing the project and the work that has been accomplished to secure the funding. If the project is cash-funded, provide a written statement certifying that the funds exist and have been escrowed for this project. The written statement must include the signatures of management personnel controlling the funds. If bonding the project, delineate the amount of funds to be borrowed, the loan term, and the annual payment with “coverage” included.

(b) **User Charge Rate & Studies.** The report must include the DMOA’s current and future user rate increases for the 20-year Horizon period. Future user rate increases shall be included in the financial management plan schedule. DMOA user rates are adopted in the Association’s 208 AWQMP.

(c) **Sewer Tap (PIFs) Rate & Studies.** The report must include the DMOA’s current and future PIF increases for the 20-year Horizon period. Future PIF increases shall be included in the financial management plan schedule. DMOA PIFs are adopted in the Association’s 208 AWQMP.

(d) **State Revolving Loan Fund (SRF).** It is good to contact the State Financial Services group early on to see what funds are available before completing the Utility Plan. Applicants must be on the Priority List to be considered, and there must be funds available before being awarded an SRF loan. Another requirement of the SRF application process is to conduct a formal Public Hearing to discuss the project and costs. The meeting minutes must be included in the appendix, as outlined within the checklist.

(e) **20-year Financial Graph.** A good visual representation of the financials and the improvements projects recommended shows the agency revenue or fund balance, with visual indicators representing a decrease in fund balance due to the recommended projects' cost over the 20-year horizon. The graph may display the time period, SRF, or bonds allocated to the overall agency fund balance and delineate payments from then on. The chart may also clearly show projected increases in user rates over the 20-year horizon as a comprehensive representation of projected cash flow.



**Figure 3 Financial Graph Example**

## **SECTION VIII. EQUITY EVALUATION AND CLIMATE ASSESSMENT.**

DMOAs submitting Utility Plans may choose but are not required to conduct an environmental justice evaluation and climate assessment at the direction of their stakeholders and decision-makers according to a DMOAs own organizational philosophies and mission.

The Association, as the regional 208 Planning Agency and DMOAs of the region, receives federal funding, and therefore 208 Planning follows Executive Order 12898 on Environmental Justice and Title VI of the 1964 Civil Rights Act and Executive Order 13166 on Improving Access to Services for Persons with Limited English Proficiency and the Americans with Disabilities Act. Title VI of the 1964 Civil Rights Act (42 U.S.C. 2000d-1 and related regulations) states that “no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” A 1994 Presidential Executive Order directed every federal agency to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on "minority populations and low-income populations." The Association’s Utility Plan requires public hearings, input, as well as documenting DMOA public decisions and provides a thorough description of the Association’s efforts to ensure compliance with these requirements.

Environmental justice policies assert that all people are entitled to equal protection from environmental risks. It is also important to consider how the implementation of infrastructure practices can bring environmental, economic, and social benefits to the communities that need them the most, equalizing access to environmental protection and benefits, and create a healthier environment in which to live and work. EPA (2018) defines environmental justice as the “fair treatment and meaningful involvement of all people

regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” Title VI provides a key legal basis for environmental justice, while Executive Order 12898 on Environmental Justice expands benefits to a wider population.

Across the United States, a variety of socioeconomic metrics are used to identify communities with environmental justice needs, but all these communities have one thing in common: populations that suffer a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. Taken together, Title VI and Environmental Justice stakeholders are individuals and protected populations, including: (a) minorities based on race, religion, or national origin; (b) low-income residents; (c) elderly residents; and (d) disabled residents.

Within this context, the Association recognizes the importance of waste treatment to all residents in the region and works toward the fair distribution of benefits and burdens of infrastructure improvements on water quality and finances. The Association takes proactive measures to provide full and fair participation in water quality planning by all potentially affected communities by means of public hearings. This includes maintaining a high level of diversity on advisory committees through annual evaluation of membership with jurisdictions, use of up-to-date maps identifying Title VI and Environmental Justice protected populations. Additionally, the Association engages affected representatives in Association public meetings and hearings, and provides communication in a culturally sensitive manner.

As a part of 208 AWQMP updates, 208 Amendments, Site Applications, and Utility Plan approvals, GIS analysis can be conducted to determine the distribution of impacts and benefits of 208 decision making regarding water quality permits and water treatment infrastructure on Environmental Justice and Title VI communities. To address the region’s needs for wastewater infrastructure, a plan performance assessment of Title VI compliance can be used to analyze the impact of future improvements to wastewater system across the region. GIS and modeling analyses can be conducted to assess the impact of current infrastructure conditions, new infrastructure in 208 Plan updates or Amendments on the population in the concentration areas to consider impacts or benefits to that area. This may be compared against the impact on the regional population, if relevant, to ensure Title VI compliance. Each jurisdiction, DMOA sponsor and facility owner are responsible for project-specific Environmental Justice and Title VI compliance assessments during project development as part of the planning and construction of its individual projects. DMOAs may use the EPA’s HE & EJ EJScreen Tool at <https://www.epa.gov/ejscreen> or the CDPHE’s [Colorado EnviroScreen](#) an interactive environmental justice mapping tool, to determine whether you live in a disproportionately impacted community. CDPHE’s Environmental Justice website may be viewed here: <https://cdphe.colorado.gov/environmental-justice> for more information. Other available resources include [Colorado’s EnviroScreen](#), [EJScreen](#), [CEJST](#), [EPA Justice40 Interim Disadvantaged Communities Indices](#).

The report can discuss the DMOA’s Utility Plan project(s) and the environmental justice evaluation and climate assessment findings related to the DMOA’s WUSA, future planning, and regional water quality impairments discussed here within.

1. Report on the work the DMOA completed to identify the disadvantaged/disproportionately impacted communities in its WUSA.

For example:

- After choosing the AAA approach, we implemented XXX, YYY and ZZZ to identify specific disadvantaged/disproportionately impacted communities in our WUSA and created geospatial data that show these communities.

- After choosing the AAA approach, we implemented XXX, YYY and ZZZ to identify specific disadvantaged/disproportionately impacted communities in the WUSA and posted that information to our website.
2. Report on the work the DMOA completed to evaluate needs, challenges, and opportunities in these communities.
- Examples include:
- After identifying the disadvantaged/disproportionately impacted communities in the WUSA, outreach was conducted with XXX number of communities to begin a conversation about community needs and how water quality management planning can help meet those needs.
  - After identifying the disadvantaged/disproportionately impacted communities in the WUSA, an analysis was completed demonstrating the connection between these communities and status of water quality in the region (e.g., are there impaired waterbodies in these communities?).
  - After identifying the disadvantaged/disproportionately impacted communities in the WUSA, a summit was held with local governments to begin developing a strategy for identifying and addressing water quality needs in these communities.
  - Investigated and identified specific opportunities to provide additional water quality technical assistance for and engagement with disadvantaged/disproportionately impacted communities.
3. Report on how the DMOA assessment of these communities will be incorporated in and affect actions defined in Utility Plans and/or activities undertaken to be integrated into the 208 plan.

Examples of specific reporting topics include:

- The extent to which water quality management planning activities and programs benefit disadvantaged communities (either currently or as planned for the future).
- Whether institutional barriers exist that prevent these communities from accessing benefits associated with Utility Plan and 208 plan implementation.
- Identify steps that could enhance the delivery of actions identified in the Utility Plan and the 208 plan and the associated benefits to disadvantaged communities.

### **Reporting Accomplishments from Climate Assessment Activities:**

The following are potential examples of an DMOA's climate assessment accomplishments that could be reported:

1. Report on the work the DMOA completed to choose climate-related tools/methods for considering climate mitigation, adaptation and resilience in the context of water quality management planning (e.g., Utility Plan & 208 plan integration).
- For example:
- We investigated XXX, YYY and ZZZ tool(s)/method(s) and chose AAA, BBB and CCC as approaches for DDD, EEE and FFF reasons.
  - We researched potential tools(s)/method(s) and existing, relevant information for our WUSA and our next steps are XXX, YYY, ZZZ.
  - We are putting XXX, YYY and ZZZ steps in place to:
    1. Incorporate vulnerability assessments into regional 208 planning
    2. Identify climate-related risks as part of our Utility Plan
    3. Identify processes that will result in prioritization of water quality actions in the regions 208 plan that have resiliency co-benefits (e.g., nature-based solutions for natural hazard mitigation) and/or



4. Identify processes that will ensure infrastructure and other water program investments prioritized in the regions 208 plan will increase resiliency
  - We conducted outreach in our WUSA to discuss changing future water quality, how we should evaluate those changes and how we should incorporate those changes into our regional 208 planning efforts
  - We collaborated with air quality partners in our WUSA to figure out next steps for a coordinated approach to planning for changing future climate conditions
- Available tools include:
  - EPA’s [Climate Change and Water Tool](#) website that includes [Creating Resilient Water Utilities](#), and/or the [U.S. Climate Resilience Toolkit](#))
  - Colorado Department of Local Affairs, [Colorado Resiliency Framework](#)
  - Colorado Water Conservation Board [climate-related resources](#)
2. Report on the work the DMOA completed to integrate output from the climate-related tools/methods into water quality management planning and 208 plan integration.
  - Based on output from the tool(s)/method(s)/approaches and/or the climate-related information compiled for the region, we are prioritizing XXX, YYY and ZZZ in our update to our Utility Plan for 208 plan integration.
  - Based on output from the tool(s)/method(s)/approaches and/or the climate-related information compiled for the region, we are working with our partners to do XXX, YYY and ZZZ as part of our Utility Plan for integration into the 208 plan.
  - Based on XXX, YYY and ZZZ, we already know that our biggest climate-related risks are AAA, BBB and CCC (e.g., flooding risks) so we are doing DDD, EEE and FFF to promote green infrastructure, floodplain and wetland restoration and XXX through the projects identified in our Utility Plan.

## **SECTION IX. NFRWQPA REGIONAL 208 AWQMP INVENTORY DATASHEET**

The Utility Plan must identify critical aspects of the management or operation agency to support the Association’s 208 AWQMP. Additionally, Utility Plans are the mechanism for updating and maintaining Water Quality Management Plans. Within the 208 AWQMP, the association recommends strategies to maintain and restore water quality-related environmental issues from regional population growth and development. The planning process is ever-evolving and repetitive due to changing water quality targets and unpredictable growth patterns. As new technology is invented, solutions are found to solve many challenging pollution problems, even as new problems arise from ever-changing regulations. The 208 AWQMP supports association decisions through sound policies and a regional collaborative approach to water quality planning and wastewater management regarding facilities and agency service areas. The supplied Utility Plan information will enable the Association to assess the current regional water quality and recommend best management practices to maintain or restore the region's water quality. The overall goal is to provide information and data to determine the future needs of wastewater facilities as well as facilitate improvements to agency service areas to maintain or restore water quality.

### **1. Agency Point Source Inventory Datasheet.**

The DMOA must the agency's Point Source Inventory Datasheet, ensuring the data agrees with the Utility Plan. Access current Agency Point Source Inventory Datasheets here: <https://nfrwqpa.colorado.gov/agency-point-source-data-inventory>. If the Point Source Inventory Datasheet needs to be updated to agree with the Utility Plan here within, provide an updated Point Source Inventory Datasheet.

**GENERAL: Minimum Graphic / Mapping Requirements**

Mapping requirements may differ between Wastewater Utility Plans. The mapping must be a legible scale to show the essential elements sufficiently. The minimum features to be included on maps include, but are not limited to, drainage basin and watershed, service area (WUSAs and GMAs), treatment plant or treatment works, lift stations, interceptors, water features (stream segments, lakes, reservoirs), discharge point(s), stormwater discharge points, water well fields, sanitary sewer tributary areas (if available), and local comprehensive plan features. Mapped features should be consistent with the site approval regulations. U.S. Geological Survey topographic maps at the 1:24,000 scale may be used for mapping most features, if ESRI program mapping is not available.

The Wastewater Utility Service Area map must show the WWTP location(s), the WUSA boundary, and, if desired, the GMA boundary. For WUSAs and GMAs, the Utility Plan maps should identify areas served by gravity sewers and those areas served through one or more major lift stations. Adjacent WUSAs and GMAs should be mapped to ensure no overlapping areas.

## VI. REFERENCES.

- 5 CCR 1002-43. (5/7/18). *Regulation 43*. WQCC. Denver: WQCC.
- Commission, W. Q. (2019). *Regulation 22-Site Location and Design Approval Regulations for Domestic Wastewater Treatment Works*. Denver: CDPHE.
- EPA. (1972). *Summary of the Clean Water Act 33 U.S.C 1251 et seq.* Retrieved August 1, 2019, from EPA: <https://www.epa.gov/laws-regulations/summary-clean-water-act>
- EPA. (2019, August 1). *Sustainable Water Infrastructure*. Retrieved from EPA United States Environmental Protection Agency: <https://www.epa.gov/sustainable-water-infrastructure>
- EPA. (May 1985). *Infiltration/Inflow I&I Analysis and Project Certification*. Washington DC: Office of Municipal Pollution Control.
- Fund, C. W. (2019, August 1). *Water Quality: Green Project Reserve*. Retrieved from Colorado Department of Public Health and Environment: <https://www.colorado.gov/pacific/cdphe/wq-green-project-reserve>
- NFRWQPA. (2018). *208 Areawide Water Quality Management Plan*. Johnstown: NFRWQPA.
- Regulations, C. o. (2019). *40 C.F.R. Part 130*. EPA.
- Sustainable Water Infrastructure*. (2019, July 1). Retrieved from EPA: <https://www.epa.gov/sustainable-water-infrastructure>
- Water Infrastructure Outreach. (June 2014). *Quick Guide for Estimating Infiltration and Inflow*. Washington DC: EPA.
- Water quality: Green Project Reserve*. (2019, July 1). Retrieved from CDPHE: <https://www.colorado.gov/pacific/cdphe/wq-green-project-reserve>
- WPC-DR-1. (9-15-12). *Design Criteria for Domestic Wastewater Treatment Works*. Denver: WQCD.

**Table 6 Utility Plan Outline Checklist**

*All Policy sections/chapters and subsections must be included in this order exactly and are required for a Utility Plan to be accepted for review and considered for approval to meet the Utility Plan Policy document's minimum requirements.*

Utility Plan Outline Checklist		
Date:	Agency:	Page No.
<b>I.</b>	<b>EXECUTIVE SUMMARY.</b>	
	1. Purpose.	
	2. Scope.	
	3. Planning Period.	
	4. Project Recommendations.	
	5. Project(s) Financial Summary.	
	6. Implementation Schedule.	
	7. Who is doing the project, What is being planned, Why is the project being considered, Where will the project be located, When will the project be started and completed, How much will the project cost, How will the project be funded, and Site layout map.	
<b>II.</b>	<b>INTRODUCTION.</b>	
	1. General Background of Entity/Agency.	
	2. Facilities Planning Summary.	
	3. General Format of Report & Supporting information.	
<b>III.</b>	<b>EXISTING CONDITIONS.</b>	
	1. Current Planning Wastewater Utility Service Area (WUSA).	
	a. Land Use Management.	
	b. Zoning.	
	c. Current Wastewater WUSA, GMA, & UPA.	
	d. 1-mile radius map identifying public and private potable drinking water well sites.	
	e. 5-mile radius map identifying all WWTPs	
	f. Current Service Area Population (WUSA)	
	g. Current Single-Family Equivalents (SFEs), SFE factor	
	2. Current Wastewater Flows and Loads.	
	a. Historical Influent Flow Data (3-years).	
	i. Averages, Peaks, & Unit Volumes, SFEs, (gpcd), etc.	
	b. Historical Influent Wastewater Loadings Data (3-years).	
	1) Influent Flow (MGD)	
	2) Biochemical Oxygen Demand (BOD).	
	3) Total Suspended Solids (TSS).	
	4) Ammonia (NH3).	
	5) Total Inorganic Nitrogen (TIN).	
	6) Total Phosphorus (TP).	
	7) TMDL(s)	
	c. Current Effluent Limitations.	
	d. Stream Segment or River Basin water quality impairments.	
	e. TMDL Loads.	
	3. Existing Wastewater Treatment System.	

	a. Description of Existing Treatment System.	
	i. Site Map, System Schematic, Flow Diagram, showing inputs, and waste streams.	
	b. Effluent Performance of Existing WWTF (3-years).	
	i. Effluent Flow Data,	
	ii. Biochemical oxygen demand (BOD),	
	iii. Total suspended solids (TSS),	
	iv. Ammonia as Nitrogen (NH3).	
	v. Total Inorganic Nitrogen (TIN).	
	vi. Total Phosphorus (TP).	
	vii. e. Coli,	
	viii. Temperature,	
	ix. Stream segment or river basin listed impairments, if applicable.	
	x. TMDLs,	
	xi. any other parameters of concern or permitted parameters (metals, TENORM, PFAS, & 10-year Roadmap).	
	c. Existing Air Quality Permit.	
	d. Existing Stormwater Management Plan.	
	e. Existing Site Characterization, providing a floodplain map and description.	
	f. Existing Facility Emergency Response Protocols.	
	g. Existing Biosolids Management Program and TENORM data.	
	h. Condition Assessment of Existing WWTF.	
	i. Recommendations for Improvements for WWTF and Biosolids Program.	
	j. Recommendations for water quality impairment(s), BMPs or BATs.	
	<b>4. Existing Collection System.</b>	
	a. GIS Shapefile: of the Existing Collection System map, i.e., WUSA, GMA, UPA, sewer lines, interceptors, & lift stations.	
	b. PDF Map: of the Existing Layout of Collection System WUSA, Description, & Condition.	
	c. Existing Lift Stations.	
	i. Mapped (Shapefile & PDF) locations of sewer lines, interceptors, & lift stations.	
	ii. Capacities and percent (%) utilization of lift stations vs. WWTF capacity.	
	iii. Emergency Response Protocols (Telemetry).	
	iv. Emergency Power Management.	
	d. Existing Condition Assessment of collection system and lift stations.	
	e. Assessment of Infiltration & Inflow (I&I).	
	f. Entity Pretreatment Program (Grease) Discussion.	
	g. Recommendations for Collection System & Lift Stations Improvements.	
<b>IV.</b>	<b>FUTURE CONDITIONS.</b>	
	<b>1. Population, SFEs, and Land Use and Zoning Projections.</b>	
	a. WUSA Population Projections.	
	b. Single-Family Equivalents (SFEs), SFE factor, Projections.	
	c. Land Use and Zoning Projections	

	<b>2. Flow and load Forecasts or Projections.</b>	
	<b>3. Projected Wastewater Flow Characterization.</b>	
	a. Wastewater Flow Projections for 208 AWQMP; SFE, gallons per capita per day, and lbs. BOD per capita per day	
	b. Typical Wastewater Flow Contributions for Planning Projections.	
	c. Future Design Loading for Parameters of Concern (TMDLs, Stream Segment 303(d) Impairments, 10-yr. Roadmap, etc. .	
	<b>4. Future Collection System Interceptor Alignments &amp; Lift Stations.</b>	
	a. GIS Shapefile: Provide a coordinated agreed upon regional DMOA GIS Shapefile map of future collection system sewer lines, interceptors, and lift stations, illustrating future WUSA, GMA, UPA, land use, & zoning.	
	b. PDF Map: Provide a coordinated agreed upon regional DMOA map of the future Interceptors and Lift Stations Locations and Sizing..	
	c. Timeline for Staging future Collection system and Lift Station improvements.	
	d. Regionalization of future interceptors or lift stations needed beyond the GMA/WUSA into the UPA area.	
	e. Discussion of how future collection system plans support 208 regional planning.	
<b>V.</b>	<b>RECEIVING STREAM WATER QUALITY.</b>	
	<b>1. Watershed Identifications.</b>	
	a. Map of Watershed Basin illustrating the effluent discharge location(s) within the identified segment(s) of the river basin in relation to the listed water quality impairments, if any.	
	b. Ambient Water Quality; Segment ID & EPA protected use categories and the resulting assessments.	
	a) 305(b) Stream Segment EPA Category Uses Table.	
	b) Regulation No. 38, Stream Segment Table Value Standards Table.	
	c) Regulation No. 93, 303(d) Stream Segment Listings Table.	
	<b>2. 303(d) Impairments &amp; Total Maximum Daily Loads Discussion</b>	
	a. What parameters are listed as 303(d) impairments or TMDLs?	
	b. Why? Is it naturally occurring from nonpoint sources or point sources from human activity? Are the impairments treatable at the WWTF, by nonpoint source BMPs, or nonstructural BMPs?	
	c. What are the contributing factors?	
	d. Will the future loadings impair water quality, maintain, or improve water quality concerning the EPA protective use categories and assessments?	
	e. What are the suggested technologies or BMPs of correction?	
	<b>3. Future Level of Treatment Required.</b>	
	a. Future level or treatment required for Division issued PELs.	
	b. Future level or treatment required for Division issued NOA.	
	c. Future level or treatment required for Water quality planning targets.	
	d. Future level or treatment required for River Basin and or Stream Segment Impairment(s), i.e., 303(d).	
	e. Future level or treatment required for 10-year Water Quality Roadmap milestones.	

	<b>4. Consideration of 208 AWQMP TMDL recommendations.</b>	
<b>VI.</b>	<b>WASTEWATER TREATMENT &amp; COLLECTION SYSTEM ALTERNATIVES.</b>	
	<b>1. Development and Screening of Treatment and Collection System Alternatives.</b>	
	a. Feasibility of Optimizing Existing Facilities - To meet PELs, WQBLs, 303(d) impairments, or TMDLs.	
	b. Regional Consolidation or Partnerships as an Alternative.	
	1. 208 AWQMP Consolidation Analysis - Policy Discussion.	
	2. Public Documentation of Consolidation Decisions.	
	c. Alternatives for Wastewater Re-use Opportunities (Flows & Load Reductions).	
	d. Treatment or collection system alternatives (New or Upgrading).	
	<b>2. Treatment or collection System Evaluation Matrix.</b>	
	a. Alternatives Monetary Costs.	
	i. Capital Cost.	
	ii. Annual Operation & Maintenance Costs.	
	iii. 20-year Present Worth Valuation.	
	b. Regional Partnerships and Consolidation Assessments.	
	c. Alternatives Energy Cost Comparisons.	
	d. Alternatives Performance concerning PELs & NOA compliance.	
	e. Alternatives Performance concerning the EPA's protective use categories and assessments.	
	f. Ease of Implementation - (Constructability).	
	g. Environmental Issues – wetlands, floodplain, nonpoint, etc.	
	<b>3. Treatment or Collection Alternative Selection.</b>	
	a. Alternative Plan Selection Matrix Process.	
	i. Monetary and Non-monetary Evaluations.	
	b. The Selected Treatment or Collection System Plan Description.	
	i. Best Available Technology (BAT)	
	ii. Current & future wastewater treatment/collection capabilities.	
	iii. Biosolids Treatment and Solids Management Plan.	
	iv. Does the selected option protect, maintain, or restore the river basin's impairment listings?	
	v. Was the Selection an integrated planning process with other regional DMOAs?	
	vi. Green Elements to be incorporated.	
	c. Emergency Standby Power System of the Alternative Plan Selected.	
	d. Odor Control Considerations of the Alternative Plan Selected.	
	e. Air Quality Requirements of the Alternative Plan Selected.	
	f. Site Stormwater Management Plan of the Alternative Plan Selected.	
	g. Site Layout Map & Flow Schematic highlighting the Alternative Plan Selected.	
	h. Site Characteristics of the Alternative Plan Selected.	
	i. NEPA Components of the Alternative Plan Selected.	
	j. Record of Public Participation in Alternative Plan Selection.	
<b>VII.</b>	<b>DMOA MANAGEMENT AND FINANCIAL PLAN.</b>	
	<b>1. Wastewater Management Plan.</b>	

	a. Management Structure of the Entity or Agency.	
	b. Provisions for Operation and Maintenance.	
	c. Proposed Implementation Schedule.	
	i. Utility Plan Approval	
	ii. Site Application Approval	
	iii. Design Approval	
	iv. Bidding Date	
	v. Construction Completion Date	
	vi. Project Start-Up	
	<b>2. Arrangements for Plan Implementation.</b>	
	a. Control of Site-Ownership Documentation (Deed or Title).	
	b. Intergovernmental Agreements – If Applicable.	
	<b>3. Financial Management Plan.</b>	
	a. Financing for Proposed Project(s).	
	b. Provide a 20-year financial budget schedule with required elements in the Policy Document illustrating revenue, User Rates & PIF increases, O&M, CIP expenditures, and loan payments.	
	c. User Charge Rate Studies.	
	i. Residential User Charge Rates & Studies; Current & Long-term.	
	d. Sewer Tap (PIFs) Rates & Studies.	
	i. Residential Sewer Taps (PIFs); Current & Long-term.	
	e. State Revolving Loan Fund (SRF), if Applicable.	
	i. State intentions to seek SRF Funding.	
	ii. Formal Public Hearing Record and Minutes; & referenced in Appendix	
	f. 20-year Financial Graph illustrating revenue (Rate Increases), expenditures (CIP & O&M), and resulting fund balances.	
<b>VIII.</b>	<b>EQUITY EVALUATION AND CLIMATE ASSESSMENT.</b>	
	1. Identify disadvantaged/disproportionately communities.	
	2. DMOA Challenges and Opportunities.	
	3. DMOA Community Assessments.	
	4. Climate Assessment Activities.	
<b>IX.</b>	<b>NFRWQPA REGIONAL 208 AWQMP INVENTORY DATASHEET.</b>	
	<b>1. Agency Point Source Data Inventory Summary-UPDATED.</b>	



<b>XI. APPENDICES.</b>	<b>Page No.</b>
<b>A.</b> Utility Plan Check List-Completed.	
<b>B.</b> Reports and Special Studies.	
<b>C.</b> Legal Description of Site and Deed (or Tax Payment Record for Site).	
<b>D.</b> Copies of Agency Contact Letters - Transmittal Letters.	
<b>E.</b> Special Surveys (Environmental or Endangered Species).	
<b>F.</b> Site Characterization: Wetlands, Floodplain, Soils Reports, Geology.	
<b>G.</b> Copy of Preliminary Effluent Limits (PELs) or NOA Report.	
<b>H.</b> Copy of Current Effluent Permit Requirements, NOA standards, or MS4.	
<b>I.</b> Planning and Zoning Information.	
<b>J.</b> Copies of Intergovernmental Agreements (IGAs).	
<b>K.</b> User Charge Studies.	
<b>L.</b> Air Quality Permit.	
<b>M.</b> Odor Control Studies or Plans.	
<b>N.</b> Site Storm Water Management Plan – Permit.	
<b>O.</b> Minutes of Public Hearing or Record of Public Meetings.	
<b>P.</b> Infiltration / Inflow Studies.	
<b>Q.</b> Copy of Pretreatment Program or Grease (FOG) Program.	
<b>R.</b> Provide a three (3) year history of all Division Notice of Violation(s) / Cease & Desist Orders.	