

**Initial Study
and Negative Declaration
for the
Durham Irrigation District
Sphere of Influence Update and Capital Improvement Plan**

*SCH#2018122044
Approved January 29, 2019*



Lead Agency:

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Durham Irrigation Board of Directors
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1 Project Contacts and Information

This Project Information, Description, and Environmental Checklist contained herein constitute the contents of an Initial Study in accordance with Section 15063 of the California Environmental Quality Act (CEQA) Guidelines:

Project Title	Sphere of Influence Update and Capital Improvement Plan
Lead Agency Contact and Address	Durham Irrigation District PO Box 98 9418c Midway Durham, CA 95938
Project Sponsor's Name and Address	Durham Irrigation District PO Box 98 9418c Midway Durham, CA 95938
Contact Person and Phone Number	Raymond Cooper, Chairman of the Board Phone 530-343-1594 Lead Agency Representative Kamie Loeser, Principal Planner NorthStar (530) 893-1600 ext. 213

2 Project Description

The proposed project is an update to the Durham Irrigation District (DID/District) Capital Improvement Plan (CIP) and Sphere of Influence (SOI). Most projects of this type, SOI updates, do not usually propose any construction as part of the project, and thus direct environmental impacts are fairly limited. In addition, DID has identified several Capital Improvement Plan (CIP) projects, not directly associated with the SOI update, that will result in a physical change to the environment (i.e., construction activities). These CIP projects generally include replacing existing water pipelines and associated infrastructure. The District anticipates pursuing a variety of funding opportunities for identified CIP projects that are anticipated to be undertaken in the next 10 years. Because funding sources will likely require that the CIP projects comply with the California Environmental Quality Act (CEQA), they are addressed in this Initial Study/Mitigated Negative Declaration.

2.1 Project Location

Durham Irrigation District is located in west-central Butte County, south of the City of Chico, **Figure 1-Location Map**.

2.2 Existing Setting

Durham Irrigation District provides domestic water services to parcels within its jurisdictional boundary or Service Area, which primarily includes the unincorporated community of Durham. The District's Service Area is approximately 489 acres in size and includes 544 unincorporated parcels. The current Service Area and Sphere of Influence (SOI) boundary are coterminous.

The District provides all water distribution, required testing, and infrastructure maintenance services. The District currently provides water services to approximately 459 customers, which corresponds to a population of approximately 1,442 people (LAFCo, 2018). The expected population growth in the District has been projected to the year 2025 assuming a growth rate of 1.03%, which corresponds to the projected growth in the County as given by the Butte County Association of Governments. The projected population for DID is 1,577 customers by 2025 (LAFCo, 2018).

The District's customers include single and multiple family residences, a variety of commercial uses, and public facilities including schools and recreational facilities, such as Durham Unified School District and Durham Recreation and Park District.

The water supply for the District is groundwater from three wells that the District owns. The maximum pumping capacity of the wells is approximately 3.456 MGD (million gallons per day). In 2016, an estimated 157 MG (million gallons) was delivered, which equates to 0.43 MGD or approximately 12% of available capacity. The drought in the mid-1990's caused a drop in the water table, in response to which the District brought its third and newest well on-line as the primary source of water on demand. Because the drought caused a drop in the water table, the District has made water conservation literature available to its customers.

The District has three wells that are drawing water; these wells furnish water on demand. Two wells have backup generator systems that allow them to continue pumping during power outages. There is no external water storage within the District's system. Portions of the water delivery piping is aging and should be replaced in the near future. There are also some pipelines in the system that are difficult to

access. The District’s lack of isolation valves in some areas is such that service must be interrupted to make repairs or new service connections.

Water quality reports indicate contaminant levels well below the regulated limits for all contaminants, including arsenic and nitrates. The arsenic in the District’s wells ranges from undetectable to 5 ppb (parts per billion). This indicates that the wells are below the limit of 10 ppb, which is the new MCL (maximum contaminant level) that went into effect on January 23, 2006. Water is treated with chlorine by injection at the wells prior to delivery.

2.2.1 Existing Land Use Designations and Zoning Classifications

The District falls within the unincorporated area of Butte County, and thus land use development within the District’s boundaries and SOI is guided by the Butte County General Plan. General Plan goals and policies and land use designations establish growth patterns and govern the future development of the area. Additionally, the County zoning ordinance implement the land use designations established in the General Plan.

In addition, the General Plan incorporates land use policy for the Durham community set forth in the Durham-Dayton-Nelson Area Plan, originally adopted in 1992, which covers the unincorporated communities of Durham, Dayton and Nelson in west-central Butte County. The Plan establishes area-wide land use policies and designates the area as an urban reserve. Policies for the area include a restriction on rural residential development to parcels of 3 acres or more, until such time as it is determined the area is “needed for development,” as determined by the County and adequate services are available to serve that development (Butte County GP EIR, Land Use). The Durham-Dayton-Nelson Area Plan establishes area-wide land use policies that provide less potential for future development than had been allowed under the former Durham Area Plan, which governed the area prior to the adoption of the Durham-Dayton-Nelson Area Plan.

Existing land use designations and zoning classifications within the DID service area and the existing SOI area are presented in **Table 1**, refer to **Figure 2-General Plan Land Use Designation** and **Figure 3-Zoning Classifications**:

Table 1 - General Plan Land Use Designations and Zoning Classifications within Existing SOI					
General Plan Designation		Zoning Classification		Parcels	Acreage
Very Low Density Residential	VLDR	Very Low Density Residential	VLDR	178	256.60
Very Low Density Residential	VLDR	Planned Development	PD	14	11.80
Medium Density Residential	MDR	Medium Density Residential	MDR	200	48.07
Medium High Density Residential	MHDR	Medium High Density Residential	MHDR	69	22.33
Medium High Density Residential	MHDR	Planned Development	PD	21	2.45
Retail	RTL	General Commercial	GC	34	9.33
Industrial	I	General Industrial	GI	16	21.85
General Industrial	GI	General Industrial	GI	1	11.03
Public	P	Public	P	11	72.88
TOTAL				544	456.34

2.3 Project Description

2.3.1 SOI Update Area

The District proposes an update to their existing SOI Plan to add 59 parcels totaling approximately 271.63 acres. The parcels proposed to be added to the SOI are depicted in **Figure 4-Sphere of Influence Update Area**. There are two areas, the main additional area is located to the east of the existing service area and the other consisting of three parcels located to the south. As shown in **Table 2**, the parcels in the SOI update area are designated by the Butte County General Plan as very low residential development. The existing land uses of the SOI update area are residential and agricultural uses.

General Plan Designation		Zoning Classification		Parcels	Acreage
Very Low Density Residential	VLDR	Very Low Density Residential	VLDR	59	271.63
TOTAL				59	271.63

2.3.2 Municipal Services Review

Pursuant to California Government Code §56430, in order to update a Sphere of Influence (SOI) for a city or special district, the associated MSR must include written determinations that address various factors regarding the ability of the subject agency to provide services. The Domestic Water and Wastewater Service Providers MSR, adopted by Butte LAFCo on June 1, 2006 contained an evaluation of DID. However, the information is dated and the District is preparing an update as part of the SOI expansion. The MSR provides an analysis of the seven categories or components required by §56430, which include: growth and population projections, disadvantaged unincorporated communities, present and planned capacity, financial ability to provide services, shared facilities, accountability for community service needs, and effective or efficient service delivery. In addition, the MSR considers these same factors when reviewing a proposed SOI expansion/update.

2.3.3 Capital Improvement Plan Project Improvements

The District has identified a series of capital improvements to the water supply system. A Capital Improvement Plan (CIP) contains all the individual capital projects, equipment purchases, and major studies for the District; as well as the estimated cost thereof. The establishment of a CIP and the appropriation and transfer of funds therefore are not subject to the provisions of CEQA. Under CEQA general rule 15061(B)(3), CEQA applies only to projects which have the potential for causing a significant effect on the environment. Identification of potential capital projects will have no effect on the environment, thus are not subject to CEQA; typically appropriate CEQA and National Environmental Policy Act (NEPA) review would take place as part of CIP development. However, the CIP is included as an attachment to the MSR the reasons set forth above in the introductory paragraph to this Part 2. The CIP projects include the following activities: isolation valve replacements/installations, meter installations at non-metered services, water line installation, water line replacements, hydrant replacements, and service reconnections associated with water line replacements. Replacement of existing water lines generally consists of replacing 2-inch, 4-inch, and 6-inch lines with 8-inch lines. A complete list of projects and their locations are provided in Appendix B.

2.4 Regulatory Setting

2.4.1 Sphere of Influence

The SOI is an important benchmark because it defines the primary area within which the District's services are anticipated to be needed. In a 1977 opinion, the California Attorney General stated that an agency's SOI should "like general plans, serve as an essential planning tool to combat urban sprawl and provide well planned efficient urban development patterns, giving appropriate consideration to preserving prime agricultural and other open-space lands" (60 Ops.Cal.Atty.Gen. 118). Like general plans, SOIs may be reviewed and updated from time to time, or upon request by any person or local agency (OPR, 2012).

The SOI update is not a license, permit, or other entitlement for use and does not create land use designations or zoning classifications. A California Appellate Court has held that SOIs must be adopted before an annexation to the affected city or district can be considered. (*Resource Defense Fund v. LAFCO* (1983) 138 Cal.App.3d 987). Depending on local policy, some LAFCOs consider SOI amendments and associated annexations separately. Section 56427 requires LAFCO to send notice of pending annexation hearings to those affected agencies whose SOIs contain territory within the proposal (OPR, 2012). Subsequent annexations into District for the potential provision of water services will be subject to CEQA at the time an annexation application is submitted to LAFCo.

2.4.2 Butte Local Agency Formation Commission (LAFCO)

The Butte LAFCo is responsible for determining boundaries of municipal service providers, such as DID, within its area of responsibility and jurisdiction. Along with its own locally adopted guidelines, the Butte LAFCo operates under the guidelines of the Cortese-Knox-Hertzberg Local Government Reorganization Act (CKH) of 2000, Government Code Section 56000.

Under the CKH Act, LAFCo has the mandate of:

- Discouraging urban sprawl
- Preservation of prime agricultural land and open space
- Promoting efficient local government services
- Encouraging orderly growth and development of local agencies

The tools that enable Local Agency Formation Commissions to accomplish those goals are the MSR, the SOI, and the ability to change the organization of a municipal agency.

In order to establish the SOI, LAFCo is required to make determinations with respect to the following:

- Present and planned land uses in the area, including agricultural and open space lands
- Present and probable need for public facilities and services
- Present capacity of public facilities and adequacy of public services provided by the agency
- Social or economic communities of interest
- The present and probable need for public facilities and services of any disadvantaged unincorporated communities within the existing SOI

The MSR provides the information that LAFCo needs, as described above, to make the appropriate determinations to establish the SOI boundary.

2.4.3 Butte County General Plan

The Butte County 2030 General Plan will govern the County through the year 2030. The General Plan identifies the land use designations for unincorporated parcels within the County. The District is located within the Durham-Dayton-Nelson Area Plan boundaries, which were adopted in 1992 and incorporated into Section 1 of the Area and Neighborhood Plans Element of the General Plan. The General Plan establishes area-wide land use policies for this area and designates it as the “Durham Urban Reserve” area. Therefore, this Initial Study relies on the policies and actions provided in the General Plan to assist in reducing potential indirect impacts, if any.

2.5 Other Public Agencies Whose Approval is Required/Obtained

The District will be the Lead Agency for the proposed project, including both the SOI update and adoption of the CIP. The Butte LAFCo will use this document for the processing of the SOI update.

No specific permits are required by any other responsible or trustee agencies to approve the SOI update and MSR. However, there are numerous permits and approvals that may be required to implement the specific projects within the SOI update area, including development projects processed by Butte County and various infrastructure projects.

Figure 1- Location Map

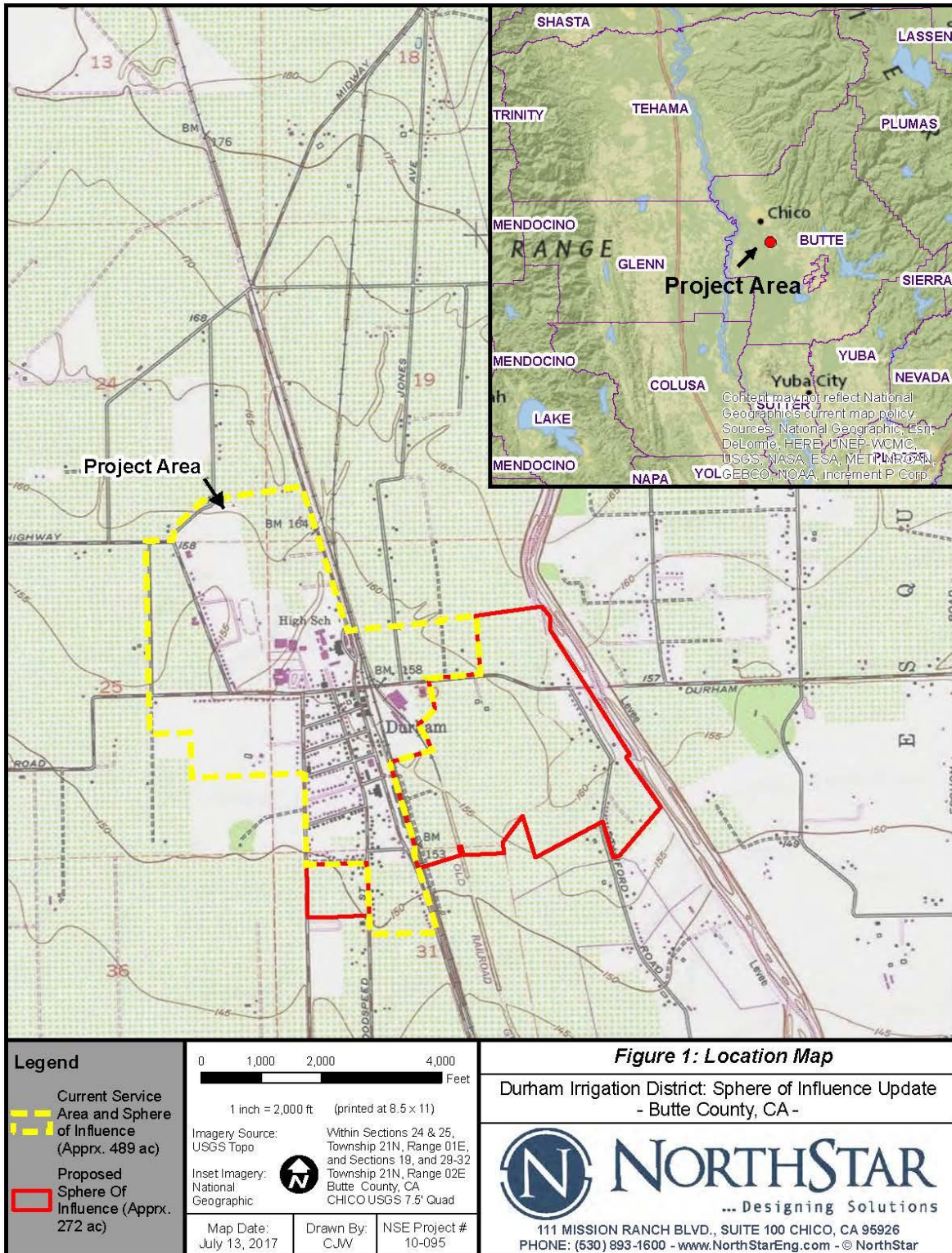


Figure 2-General Plan Land Use Designations

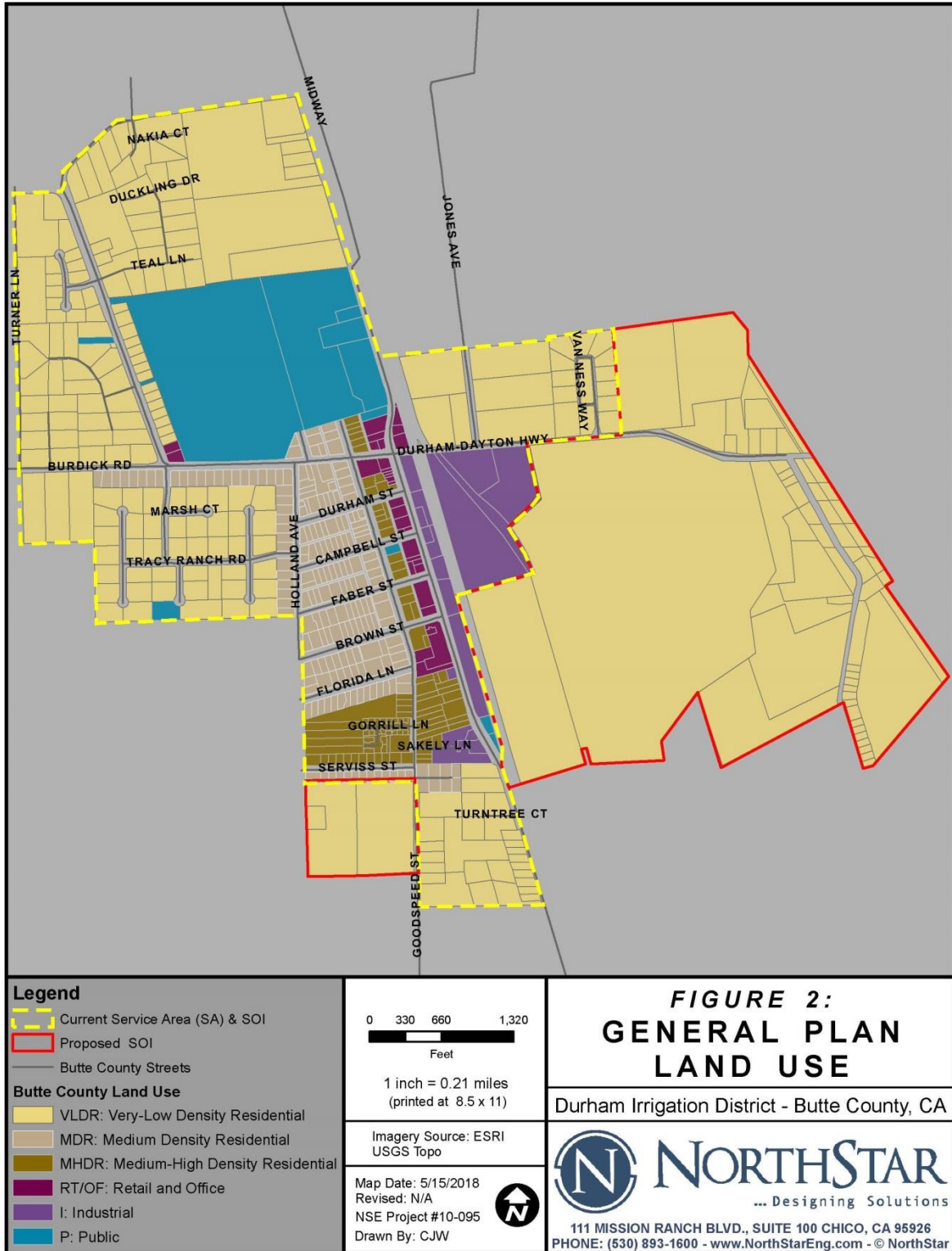


Figure 3-Zoning Classifications

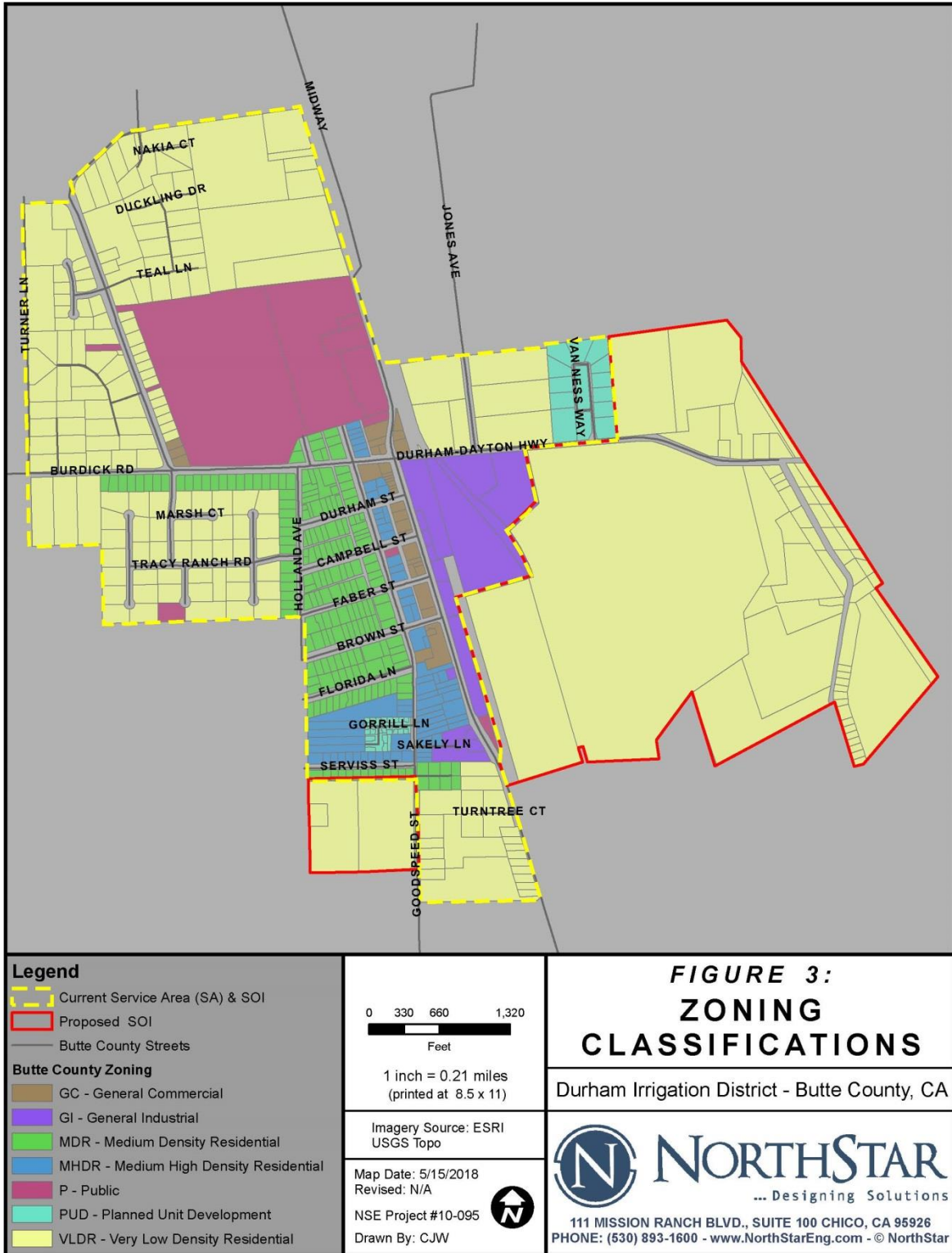
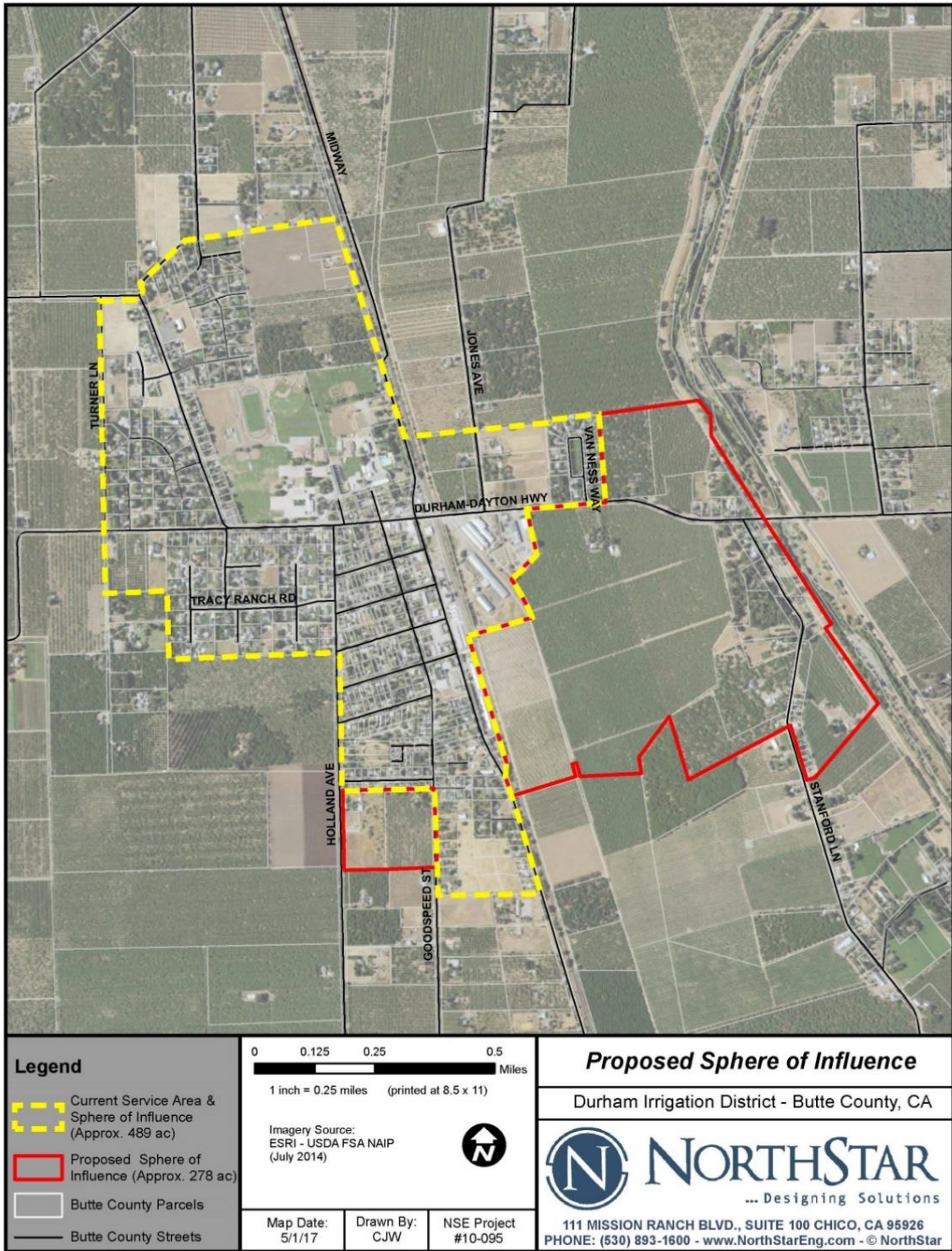


Figure 4-Sphere of Influence Update Area



3 Determination

3.1.1 Environmental Factors Potentially Affected

The environmental factors checked below could be potentially affected by this project; however, with the incorporation of mitigation measures, potentially significant impacts are reduced to less than significant level by the project (CEQA Guidelines Section 15382).

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural/Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population & Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

3.1.2 Determination:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

December 6, 2018

Date

Kamie Loeser, Principal Planner, NorthStar

Printed Name

Durham Irrigation District

For

4 Environmental Checklist

4.1 Aesthetics

Would the project:	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site/surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

4.1.1 Discussion

a)-d) No Impact. The project consists of the update of the DID SOI and approval of the associated CIP. The expansion of the SOI boundary is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. There would be no construction activities or expansion of facilities with implementation of the proposed project. Therefore, there would be no change to scenic resources or scenic vistas. There would be no change to the existing visual character of the region. The project would not create new light sources.

4.1.2 Mitigation

None required.

4.2 Agriculture and Forestry Resources.

Would the project:	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Convert Farmland (Prime, Unique or of Statewide Importance) pursuant to the Farmland Mapping and Monitoring Program of the CA Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X

d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X

4.2.1 Discussion

a) No Impact. The project consists of the update of the DID SOI boundary, to include the Durham urban reserve area, and approval of the associated CIPCIP. The proposed project does not change land use designations or zoning classifications. The Butte County General Plan and zoning ordinances identify the parcels within the proposed SOI boundary as Very Low Density Residential (VLDR). Although the existing land uses within the proposed SOI boundary include agricultural land uses, changes to the SOI boundary are not a permit or other entitlement for use or construction. Because there would be no construction activities or expansion of facilities with approval of the proposed project, the project would not result in the conversion of Prime Farmland, Farmland of Statewide Importance, Unique Farmland or Farmland of Local Importance, as shown on the maps prepared pursuant to Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

b) No Impact. The project will not conflict with existing zoning for agricultural use, or a Williamson Act Contract. While there are lands outside of the Durham community and urban reserve area designated for agricultural uses, the update to DID SOI boundary and approval of the associated MSR does not include land zoned for agricultural uses, nor would approval of the project result in a permit or other entitlement for use. Therefore, relative to land use designations and Williamson Act contracts, there would be no impact.

c-e) No Impact. The proposed project would not result in land use or zoning changes. The land use designation and zoning classification within the proposed SOI expansion area is Very Low Density Residential (VLDR). Therefore, the project would not cause the rezoning or loss of forestland or timberland to non-forest use. Furthermore, the proposed project does not involve changes to the existing environment that could result in the conversion of Farmland to non-agricultural use.

4.2.2 Mitigation:

None required.

4.3 Air Quality

Would the project:	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X

Would the project:	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including emissions that exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X

4.3.1 Discussion

a-e) No Impact. The project consists of the update of the DID SOI boundary and approval of the associated CIP. The expansion of the SOI boundary is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. The proposed project would not conflict with the implementation of any air quality attainment plans, as there would be no construction activities associated with project approval as well as no changes to land use designations and zoning classifications as identified in the Butte County 2030 General Plan. The proposed project would not violate or contribute to a violation of any air quality standard, it would not result in a cumulatively considerable net increase of any criteria pollutants, nor would it expose any sensitive receptors to pollutants or create objectionable odors. Greenhouse Gas Emissions are evaluated in Section 7 below.

4.3.2 Mitigation

None Required.

4.4 Biological Resources

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

4.4.1 Discussion

a) No Impact. The proposed project consists of the update of the DID SOI boundary to include the Durham urban reserve area and approval of the associated CIP . The expansion of the SOI boundary is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. The project would not result in a direct or indirect impact on habitat or modification to habitat that would affect any candidate, sensitive or special status species as there would be no construction activities associated with project approval.

b–c) No Impact: The proposed project is the expansion of DID SOI boundary and approval of the associated CIP. There would be no construction activities associated with project approval.

d) No Impact. The project will not interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory corridors. The project will not impede the use of native wildlife nursery sites as there would be no construction activities associated with project approval.

e–f) No Impact. The proposed project would not conflict with any local, regional, or state policy, ordinance or conservation plan in effect for the area. While the Durham community is located within the boundaries of the proposed Butte County Regional Conservation Plan (BCRCP), the expansion of the SOI

boundary and approval of the associated MSR would not conflict with the provisions contained within the draft BCRCP.

4.4.2 Mitigation

None Required.

4.5 Cultural Resources

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CA Code of Regulations, §15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
<p>e) Tribal Cultural Resources: Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:</p> <ol style="list-style-type: none"> 1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or 2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision © of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision © of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe. 				<p style="margin-top: 150px;">X</p> <p style="margin-top: 100px;">X</p>

4.5.1 Discussion

a–d) No Impact. The proposed project consists of the update of the DID SOI boundary, to include the Durham urban reserve area, and approval of the associated CIP. Therefore, there are no impacts or alterations to potential historical resources, as defined by the California Code of Regulations. In addition, the project would not impact archaeological or paleontological resources, as disturbances, typically associated with construction activities, are not proposed. In addition, because the project does not include ground disturbing activities, there would be no disturbances to potential burial sites or cemeteries.

4.5.2 Mitigation:

None Required.

4.6 Geology and Soils

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i.) Rupture of a known earthquake fault, as delineated on the Alquist-Priolo Earthquake Fault Zoning Map for the area or based on other substantial evidence of a known fault?				X
ii.) Strong seismic ground shaking?				X
iii.) Seismic-related ground failure/liquefaction?				X
iv.) Landslides?				X
b) Substantial soil erosion or the loss of topsoil?				X
c) Located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, and potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

4.6.1 Discussion

a–d) No Impact. The proposed project consists of the update of the DID SOI boundary, to include the Durham urban reserve area, and approval of the associated CIP. The expansion of the SOI boundary is not a permit or other entitlement for use or construction, nor does it change land use designations or

zoning classifications. The proposed project does not involve the construction of new or expanded facilities. The expanded SOI boundary would not change or increase the exposure of people or structures to potential risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, ground failure, liquefaction, subsidence, lateral spreading or landslides. Impacts associated with land use and zoning classifications within the urban reserve area were considered as part of the Butte County 2030 General Plan. Therefore, no impact associated with geology and soils would occur.

e) No Impact. The DID SOI update and approval of the MSR does not result in construction of facilities that involve the use of septic tanks or alternative wastewater treatment disposal systems to handle wastewater generation. No impacts would result with implementation of the project.

4.6.2 Mitigation:

None required.

4.7 Greenhouse Gas Emissions

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Generate greenhouse gas emissions, directly or indirectly, that may have a significant impact on the environment?				X
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X

4.7.1 Discussion

a) No Impact. The SOI boundary update would not generate greenhouse gas emissions, directly or indirectly, because the update to the SOI boundary is not a permit or other entitlement for use or construction and it would not change land use designations or zoning classifications. Impacts associated with land use and zoning classifications within the urban reserve area were considered as part of the Butte County 2030 General Plan.

b) No Impact. The proposed project would not conflict with any identified plans, policies, or regulations adopted for the reduction of greenhouse gas emissions.

4.7.2 Mitigation

None required.

4.8 Hazards and Hazardous Materials

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

4.8.1 Discussion

a–h) No Impact. The SOI boundary update would not involve the transport or use of hazardous materials nor change or increase any public exposure to hazards or hazardous materials because the update to the SOI boundary is not a permit or other entitlement for use or construction. The proposed project does not involve the construction of new or expanded facilities. There would be no hazardous impacts with project implementation.

4.8.2 Mitigation

None Required.

4.9 Hydrology and Water Quality

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Violate any water quality standards or waste discharge requirements?				X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

4.9.1 Discussion

a-f) No Impact. The expansion of the SOI boundary is not a permit or other entitlement for use or construction and thus does not involve the construction of new or expanded facilities. No impacts to water quality standards, changes to groundwater levels, drainage patterns or stormwater systems would occur with project implementation.

g-i) No Impact. The expansion of the SOI boundary is not a permit or other entitlement for use or construction and thus does not involve the construction of new or expanded facilities, nor would the proposed project would not involve the construction of housing. The proposed project would not expose people or property to water-related hazards such as flooding or impede or redirect flood flows.

4.9.2 Mitigation

None Required.

4.10 Land Use and Planning

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

4.10.1 Discussion

a-b) No Impact. The Butte County 2030 General Plan will govern the County through the year 2030. The General Plan identifies the land use designations for unincorporated parcels within the County. The District is located within the Durham-Dayton-Nelson Area Plan boundaries, which was adopted in 1992 and incorporated into Section 1 of the Area and Neighborhood Plans Element of the General Plan. The General Plan establishes area-wide land use policies for this area and designated it as the “Durham Urban Reserve” area. The Butte County General Plan land use and zoning ordinance identifies the parcels within the proposed SOI boundary update area as Very Low Density Residential (VLDR); changes to the SOI boundary do not change the existing land use designations or zoning classifications. Although existing land uses within the SOI update area are primarily agricultural uses, the SOI update is not a permit or other entitlement for use or construction. The proposed project would not divide an established community nor would it conflict with the any applicable land use plan, policy or regulation.

c) No Impact. The proposed project would not conflict with any adopted habitat conservation or natural community conservation plans as the Butte County Regional Conservation Plan (BCRCP) has not been adopted.

4.10.2 Mitigation

None required.

4.11 Mineral Resources

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site on a local general plan, specific plan or other land use plan?				X

4.11.1 Discussion

a-b) No Impact. The SOI boundary update is not a permit or other entitlement for use or construction, nor does it change the existing land use designations or zoning classifications of VDLR. The proposed project does not involve the construction of new or expanded facilities. Therefore, the proposed project would not result in the loss of availability of a known mineral resource or locally-important mineral resource that would be of future value to the region and residents of the State. No impacts to mineral resources would occur.

4.11.2 Mitigation

None Required.

4.12 Noise

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

4.12.1 Discussion

a-f) No Impact. The SOI boundary update is not a permit or other entitlement for use or construction and thus does not involve the development or enhancement of any new noise emitting sources. Because there are no construction activities associated with the SOI update, the SOI update would not expose people living or working within the existing or expanded SOI to excessive noise levels. No noise impacts would result with project implementation.

4.12.2 Mitigation

None Required.

4.13 Population and Housing

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

4.13.1 Discussion

a-c) No Impact. The District's jurisdictional boundaries consist of the unincorporated community of Durham and the surrounding area. The Durham-Dayton-Nelson Area Plan establishes area-wide land use policies that provide less potential for future development than had been allowed under the former

Durham Area Plan, which governed the area prior to the adoption of the Durham-Dayton-Nelson Area Plan. The Butte County General Plan land use and zoning ordinances identify the parcels within the proposed SOI boundary update area as Very Low Density Residential (VLDR). Zoning restrictions limit the growth in the area. The SOI update does not change the existing land use designations or zoning classifications, nor is it a permit or other entitlement for use or construction. Because no construction is necessary or would occur, the project will not result in the extension of services or infrastructure to the area. No impacts will occur to population growth directly or indirectly as a result of the proposed project as the land use designations and zoning classifications were identified in the Butte County 2030 General Plan. The project will not displace people or housing nor necessitate the construction of replacement housing elsewhere. Therefore, the project would have no impact on population and housing.

4.13.2 Mitigation

None required.

4.14 Public Services

Would the project: result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

4.14.1 Discussion

a-e) No Impact. The SOI boundary update is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. Therefore, the SOI update would not construct buildings, businesses or other facilities that would result in an increased population in the area. Because the proposed project does not involve the construction of new or expanded facilities, there would be no demands on public services such as fire protection, police protection, schools, or parks generated by the SOI update. No changes in fire protection or police protection are proposed as part of this project. Therefore, the SOI update will generate no impact on public services.

4.14.2 Mitigation

None required.

4.15 Recreation

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

4.15.1 Discussion

a-b) No Impact. The proposed SOI update does not include the development of recreational facilities or other structures that would require the construction or modification of any recreational facilities. The proposed project will not impact local recreation facilities.

4.15.2 Mitigation

None required.

4.16 Traffic and Transportation

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

4.16.1 Discussion

a-g) No Impact. The SOI update does not create any new demand for any mode of transportation services. There are no construction activities associated with the proposed project (and therefore no increase in traffic levels, inadequate emergency access, etc.). No impacts associated with transportation or traffic would occur with implementation of the project.

Mitigation

None Required.

4.17 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) or				X
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In apply the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead				X

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
agency shall consider the significance of the resource to a California Native American tribe.				

Discussion

a–b) No Impact. The proposed project does not involve any land alteration or structural modifications to parcels within the SOI update area. The SOI boundary update is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. Therefore, the SOI update does not involve the construction of new or expanded facilities and thus no changes to tribal cultural resources or resources that are listed or eligible for listing in the California Register of Historic Resources would occur, as changes usually included disturbances typically associated with construction activities.

4.17.1 Mitigation

None Required.

4.18 Utilities and Service Systems

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Exceed wastewater treatment requirements of the applicable Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X

Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
e) Result in a determination by the wastewater treatment provider which serves/may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

4.18.1 Discussion

a–g) No Impact. The proposed project would not place additional demands on, nor affect public utilities, particularly wastewater treatment facilities, water facilities and storm drain systems. The SOI boundary update is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. The proposed project does not involve the construction of new or expanded facilities. No solid waste disposal or disposal facilities would be needed for the proposed project. Therefore, no impacts to existing utilities and services will occur with implementation of the proposed project.

4.18.2 Mitigation

None Required.

5 Mandatory Findings of Significance

Mandatory Findings of Significance	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

5.1.1 Discussion

a-c) No Impact The project consists of the update of the DID SOI and approval of the associated CIP. The expansion of the SOI boundary is not a permit or other entitlement for use or construction, nor does it change land use designations or zoning classifications. There would be no construction activities or expansion of facilities with implementation of the proposed project. Therefore, the proposed project will not degrade the environment; result in an adverse impact on fish, wildlife, or plant species including special status species, or prehistoric or historic resources.

The project does not involve the addition of new expanded structures, facilities, or growth inducing effects, which would be considered cumulatively considerable with regards to past or future projects.

Based on the preceding environmental analysis, the SOI update and approval of the associated MSR will not result in potentially significant cumulative, direct or indirect adverse effects on human beings.

6 Preparers and References

6.1 Report Preparation and Review

Kamie Loeser, Principal Planner, NorthStar, Reviewer

Matt Rogers, Associate Biologist/Planner, NorthStar, Preparer

Robin Kampmann, Senior Engineer, NorthStar

Nicole Ledford, Senior Engineer, NorthStar

6.2 References

Butte County, 2010. *Butte County 2030 General Plan*. Adopted October 26, 2010, Amended November 6, 2012.

Butte LAFCo, Local Agency Formation Commission, 2006. *Domestic Water and Wastewater Services Providers, Final Municipal Services Review*. Quad-Knopf, June 1, 2006

Durham Irrigation District, DID. *Draft Municipal Service Review and Sphere of Influence Plan*. NorthStar, November 8, 2017.

OPR, Office of Planning and Research, 2012. *LAFCOs, General Plans and City Annexations*. State of California, Governor's Office of Planning and Research. February 7, 2012.

7 Acronyms and Abbreviations

Agencies, Boards, Commissions, Districts:

CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CDWR	California Department of Water Resources
DTSC	(California) Department of Toxic Substances Control
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
NAHC	Native American Heritage Commission
NSVAB	Northern Sacramento Valley Air Board
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Guidelines, Policies, Programs, Regulations:

CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CWA	Clean Water Act
ESA	Endangered Species Act
FGC	Fish and Game Code
MBTA	Migratory Bird Treaty Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NPDES	National Pollution Discharge Elimination System
NRHP	National Registry of Historic Places
SIP	State Implementation Plan

Miscellaneous:

APE	Area of Potential Effect
ASR	Archaeological Survey Report
BA	Biological Assessment
BMPs	Best Management Practices
BSAs	Biological Study Areas
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
ESAs	Environmentally Sensitive Areas
FIRM	Flood Insurance Rate Map
GGS	Giant Garter Snake
GHG	Green House Gases
ISA	Initial Site Assessment
MLD	Most Likely Descendant
NES	Natural Environmental Study
NOx	Nitrogen oxides

PM_{10 / 2.5}Particulate Matter less than 10 / 2.5 Microns
ROG Reactive Organic Gases
RPWRelatively Permanent Waters
RSP Rock Slope Protection

Appendix A
Municipal Service Review

PUBLIC REVIEW DRAFT

MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE PLAN

FOR THE

DURHAM IRRIGATION DISTRICT



Prepared by the Butte Local Agency Formation Commission
SEPTEMBER 20, 2018



DISTRICT DATA SHEET

DURHAM IRRIGATION DISTRICT

Contact: Raymond Cooper, President of the Board of Directors
Address: 9418C Midway, Durham, CA 95938.
Mailing Address: PO Box 98, Durham, CA 95938
Phone: (530) 343-1594
Webpage: None

GOVERNING BOARD

Durham Irrigation District Board of Directors

Normal Board Meeting Date: Second Tuesday of each month at 6:00 p.m.

Board Meeting Location: District Office, 9405 Midway, Durham

FORMATION INFORMATION

The Durham Irrigation District was formed in 1948.

PURPOSE

1. Enabling Legislation: California Water Code, Division 11, §20500 et seq.
2. Authorized Services: Domestic Water Service
3. Provided Services: Domestic Water Service

AREA SERVED

1. Supervisorial District: 4
2. No. of Parcels: 544
3. District Size: 489 acres
4. Estimated Population: 1,442
5. Location: Unincorporated community of Durham and the surrounding area.
6. Sphere of Influence: 498 acres

FINANCIAL INFORMATION

Year End 2016

Revenues: \$257,243

Expenditures: \$259,184

Capital Assets 12/31/2016: \$863,032

Revenue Sources:

- Water Sales
- Meter Connection Fees
- Interest

NOTES

1. Number of Customers: 459
2. Number of Employees: 3

DISTRICT SUMMARY

The Durham Irrigation District (DID) was established in 1948 to serve the unincorporated community of Durham and the surrounding area with domestic water service. The District's service area encompasses 489 acres (0.7 square miles) and approximately 544 parcels. The District has an estimated population of 1,442 with 459 service connections.

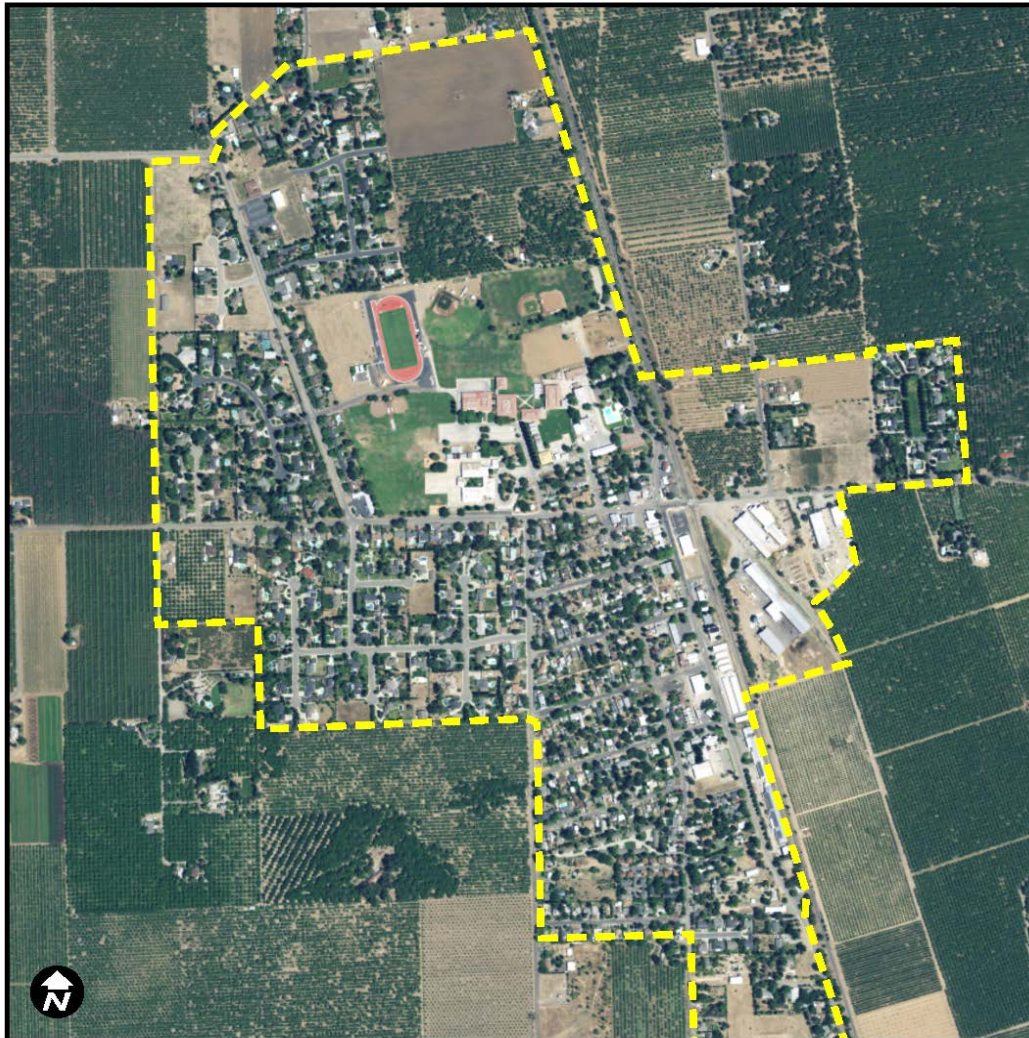


Figure 1 District Service Area

The services provided by the District were last reviewed in the Durham Irrigation Municipal Service Review (MSR) adopted by Butte Local Agency Formation Commission (LAFCo) in 2006. The 2006 MSR contained numerous determinations regarding DID's operations, most notably "As of FY ending 2004 (the most recent audit available at that time), revenues exceeded expenditures. Rates should continue to be re-evaluated as necessary to ensure that they cover the costs of providing related services."

As a result of the determinations contained in the 2006 MSR, the District underwent two Rate Studies – First in 2011 and then again in 2017-18. The studies initiated a rate increase that kept expenditures below revenue and allowed for the District to create a

fund for needed capital improvements. The second study is planned for a California Constitution Article XIII.D Section 6 hearing in November of 2018 with new rates going into effect in January of 2019.

DID SERVICES

The District is an independent special district (not part of any county or city) that provides domestic water service to parcels within its service area.

MUNICIPAL SERVICE REVIEW FACTORS FOR THE DURHAM IRRIGATION DISTRICT

Pursuant to California Government Code §56430, in order to update a Sphere of Influence (SOI) for a city or special district, the associated MSR must include written determinations that address various factors regarding the ability of the subject agency to provide services. The following provides an analysis of the seven categories or components required by §56430 for the Municipal Service Review for the Durham Irrigation District:

MSR FACTOR NO. 1: GROWTH AND POPULATION PROJECTIONS FOR THE AFFECTED AREA.

The District's jurisdictional boundaries consist of the unincorporated community of Durham and its surrounding area. There are no clear significant growth areas; the Butte County General Plan zoning ordinance greatly limits the growth in the area. The Durham-Dayton-Nelson Area Plan which is incorporated into the Butte County's General Plan 2030 establishes area-wide land use policies that provide less potential for future development than had been allowed under the former Durham-Dayton-Nelson Area Plan (D2N), which governed the area prior to the adoption of the new Durham Area Plan. Any future growth in the District shall be dictated by requests for annexation submitted to, and approved by, LAFCo.

Smaller parcels comprising approximately 456 acres within the District are used for urban uses within the community core of Durham. Land uses within the District include single-family residential uses, commercial uses, industrial uses, and public uses. There is very little potential for new development within the boundaries of the District. A large portion of the community of Durham is zoned for medium and medium-high density residential uses. However, the lack of a public sanitary sewer system in the Durham area restricts the creation of smaller parcels or the construction of multiple dwellings on existing developed parcels. The area of the District outside of the community core of Durham is mostly zoned for agricultural uses on parcels with a minimum parcel size of 20 to 40 acres.

The following table provides population data for the unincorporated area of Butte County, and for Butte County as a whole, for the years 2010 to 2016:¹

¹ State of California, Department of Finance, *E-4 Population Estimates for Cities, Counties, and the State, 2011-2016, with 2010 Census Benchmark*. Sacramento, California, May 2016.

	4/1/10	1/1/11	1/1/12	1/1/13	1/1/14	1/1/15	1/1/16	2010-2016 Growth Rate	Compound Annual Growth Rate 2010-2016
Unincorporated	83,758	83,966	83,270	82,622	82,563	82,371	80,262	-4.2%	-0.7%
County Total	220,000	220,828	221,064	222,250	223,120	224,121	224,601	2.1%	.35%

Table 1 Population Butte County

The above table shows that the population of the unincorporated area of Butte County has decreased by approximately 4.2 percent since 2010. Most, if not all, of this population decrease can be attributed to the annexations of a large number of developed parcels to the cities within the county, primarily to the City of Chico.

The growth rate of Butte County as a whole for 2010 to 2016 was 2.1 percent, which is a compound annual growth rate of approximately 0.35 percent. The population growth rate during this period was lower than previous years due to the slowdown in the economy and in the housing market that began in 2008.

In March 2017, the State of California Department of Finance released updated population growth projections for all of the counties within the state². The population projection for Butte County shows that by 2060 the county may have a population of 292,892. The 2060 projected population is approximately 30.5 percent above the county's current population, which represents an approximate compound annual growth rate of 1.03 percent.

Estimates		Projections								
2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
220,157	224,363	230,709	238,546	247,339	256,042	263,642	270,612	277,512	285,290	292,892

Table 2 California Department of Finance Population Projections for Butte County 2020-2060

The California Department of Finance reported that there is an approximate 2.65 persons per household in the Durham area (zip code 95938). With this figure the 2016 District population is projected to be 1,442 persons. The population within the DID service area is expected to grow at a rate of approximately 1 percent a year, with most of that growth occurring within the unincorporated community of Durham.

The following table shows estimated population projections for the DID service area.

2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1,456	1,471	1,485	1,500	1,515	1,530	1,546	1,561	1,577	1,592	1,608	1,624	1,641	1,657

Table 3 Population Projections for Durham Irrigation District - 2017-2030

² State of California, Department of Finance, *P-2: County Population Projections (2010-2060)*. Sacramento, California, March 8, 2017.

Population growth within the Durham area could be significantly greater than 1 percent annually if a sanitary sewer system is constructed to serve the area. However, there are no known plans for a sanitary sewer system to be constructed in the Durham area.

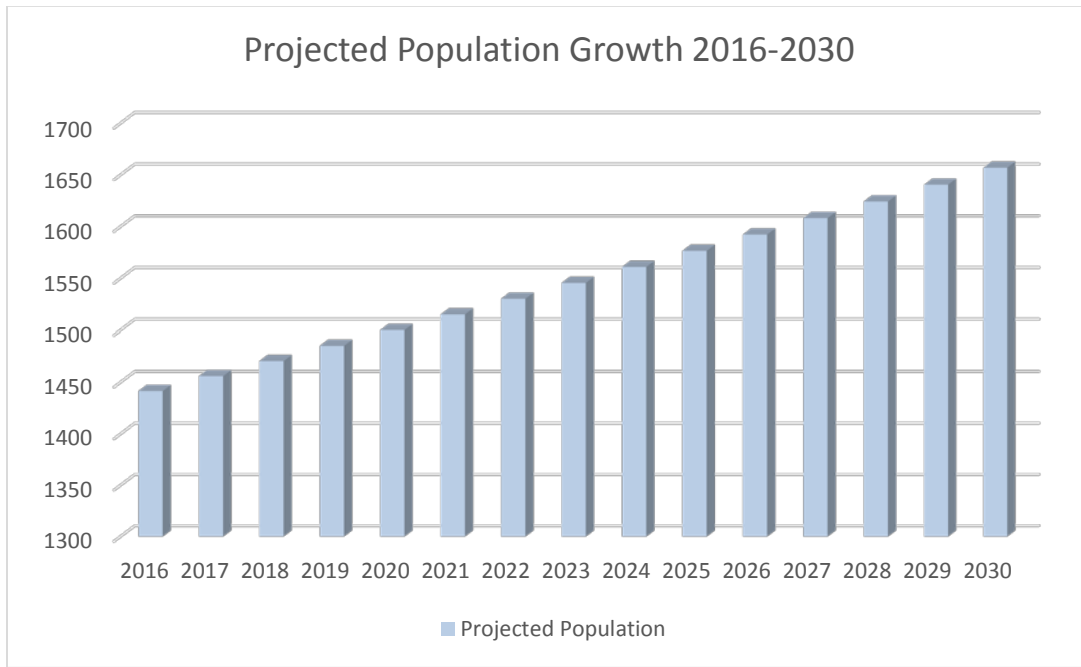


Figure 2 Projected Population Growth 2016-2030

As population increases, and growth occurs within the District, service demands will increase. Expansion of services is facilitated by increases in revenues due to rate increases and the collection of assessment fees from new development.

MSR DETERMINATION 1-1: POPULATION	
	<i>The District has a current population of approximately 1,442 people.</i>

MSR DETERMINATION 1-2: POPULATION GROWTH	
	<i>The population served by DID is expected to grow at a rate of approximately 1 percent annually. Future population growth within the District is expected to occur primarily within the Durham area.</i>

MSR DETERMINATION 1-3: POPULATION GROWTH AND NEW SERVICE DEMANDS	
	<i>There is very little potential for new development within the boundaries of the District. However, as the population gradually increases, and growth occurs within DID, service demands will increase. Expansion of services by DID is facilitated by increases in revenues due to rate increases and individual parcel assessment fees from new development.</i>

MSR FACTOR NO. 2: THE LOCATION AND CHARACTERISTICS OF ANY DISADVANTAGED UNINCORPORATED COMMUNITIES WITHIN OR CONTIGUOUS TO THE SPHERE OF INFLUENCE.

Disadvantaged unincorporated communities (DUCs) are defined by statute as inhabited territory (meaning 12 or more registered voters) or, as determined by commission policy, that constitute all or a portion of a community with an annual median household income (MHI) that is less than 80 percent of the statewide annual MHI (Water Code Section 79505.5). The statewide MHI data is obtained from the US Census American Community Survey (ACS) 5-Year Data: 2011 - 2015. California's MHI for this period was \$61,818, and 80 percent of that is \$49,454.

Median household income data is available at the U.S. Census block group mapping level. Based upon the MHI data for the U.S. Census block groups within the boundaries of the District, there are no identified communities within the District that qualify as being a DUC.

MSR DETERMINATION 2-1: DISADVANTAGED UNINCORPORATED COMMUNITIES	
	<i>Per the Census tract data the Durham community would not be considered a DUC. There are areas within the Durham Irrigation District service area, specifically islands of multifamily housing and smaller single-family residences, which if analyzed separately from the tract data may potentially qualify as a DUC.</i>

MSR FACTOR NO. 3: PRESENT AND PLANNED CAPACITY OF PUBLIC FACILITIES, ADEQUACY OF PUBLIC SERVICES, AND INFRASTRUCTURE NEEDS OR DEFICIENCIES INCLUDING NEEDS OR DEFICIENCIES RELATED TO SEWERS, MUNICIPAL AND INDUSTRIAL WATER, AND STRUCTURAL FIRE PROTECTION IN ANY DISADVANTAGED, UNINCORPORATED COMMUNITIES WITHIN OR CONTIGUOUS TO THE SPHERE OF INFLUENCE.

ADEQUACY OF PUBLIC SERVICES

As previously noted, DID provides the following services:

- Domestic Water Services

DID provides water to customers utilizing three wells and an underground pipe system. They currently have 459 customers. All service laterals beyond the water meter within the District are maintained by private landowners. The following pictures show various Durham Irrigation District conveyance facilities in the service area.

FACILITIES

The District's office is located at 9418C Midway, Durham in a suite of a building parcel (APN 040-213-015). The District leases the office from the owner for \$450.00 a month. The building suite houses a small office and meeting space. The District has no plans to make any significant improvements to this building.

The District Office is open on Tuesdays and Thursdays from 8:00 am to 12:00 noon. However, the office may be closed at times during these hours because the District Operator and the District's part-time administrative assistant/bookkeeper/secretary may be out of the office or in the field providing services. Most communications to the



Figure 3 Durham Irrigation District Office

District come in the form of phone calls to the main office and emails to the District email address durhamwater@att.net.

The District owns three parcels of land on which the existing wells are located. It maintains easements for facilities not within the public road system.

DISTRICT EQUIPMENT

Due to budgetary constraints, the District operates with little overhead capital. The office does have a computer, fixtures and supplies related to a small office operation. The District contracts with a Certified Drinking Water System Distribution Operator who provides his own vehicle and tools used on the job. For this reason the District does not have or maintain all the necessary equipment or personnel to provide all services required for continual operations, especially those requiring heavy equipment, and therefore many projects must be contracted out to licensed providers. Some examples of contracted work include repairs of existing infrastructure, installation of new meters or valves, and well pump maintenance. The District Operator also oversees and inspects any work outside of his contractual scope of work performed by contractors for improvements to District infrastructure done.

The District has three groundwater wells that supply the water required by District users. Two wells have back up power to maintain full operations during outages. One well lacks back up power, but this does not affect system capability as the other wells have capacity to meet demands.

Portions of the water delivery conveyance system are aging and should be replaced in the near future. However, the District Operator has made and continues to make many

improvements to the well pumps and in the timing of deliveries, thus avoiding pressure surges and line breaks. These improvements have extended the life of the existing piping conveyance system, and typical pipeline breaks are now only caused by tree damage. Limited portions of the District's domestic water infrastructure lack shut off valves and service in those areas must be interrupted to make repairs or new service connections thereto.

CAPACITY

The District relies solely on groundwater for its supplies, which is pumped from its three wells into a conveyance system owned by the District. The District previously contracted with California Water Service for management of facility operations, however, the District now contracts with an independent contractor who performs services as the District Operator, and many upgrades and improvements have been made over the last seven years under his engagement. Previous reports included estimations of total pumping capacity of the three wells, but over the past seven years, flow meters have been installed, and now actual pumping data is readily available for each of the three wells.

In March 2008 the California Waterworks Standards were revised to include new methodology for determining minimum required source capacity and proof that water systems with fewer than 1,000 service connections had either storage capacity equal to maximum daily demand, or additional source supply that could meet the demand. Source capacity from any two of the wells combined exceeds the maximum daily demand, so the third well is considered an additional source of supply. Therefore, distribution storage is not required at this time. The maximum pumping capacity of the three wells is approximately 3.456 MGD (million gallons per day) while the average daily use is 0.43 MGD or 15% of capacity. In 2016, an estimated 157 MG (million gallons) was delivered.

- Well pump #3 can deliver 800 gallons per minute (1.152 MGD)
- Well pump #4 can deliver 500 gallons per minute (0.72 MGD)
- Well pump #5 can deliver 1100 gallons per minute (1.584 MGD)

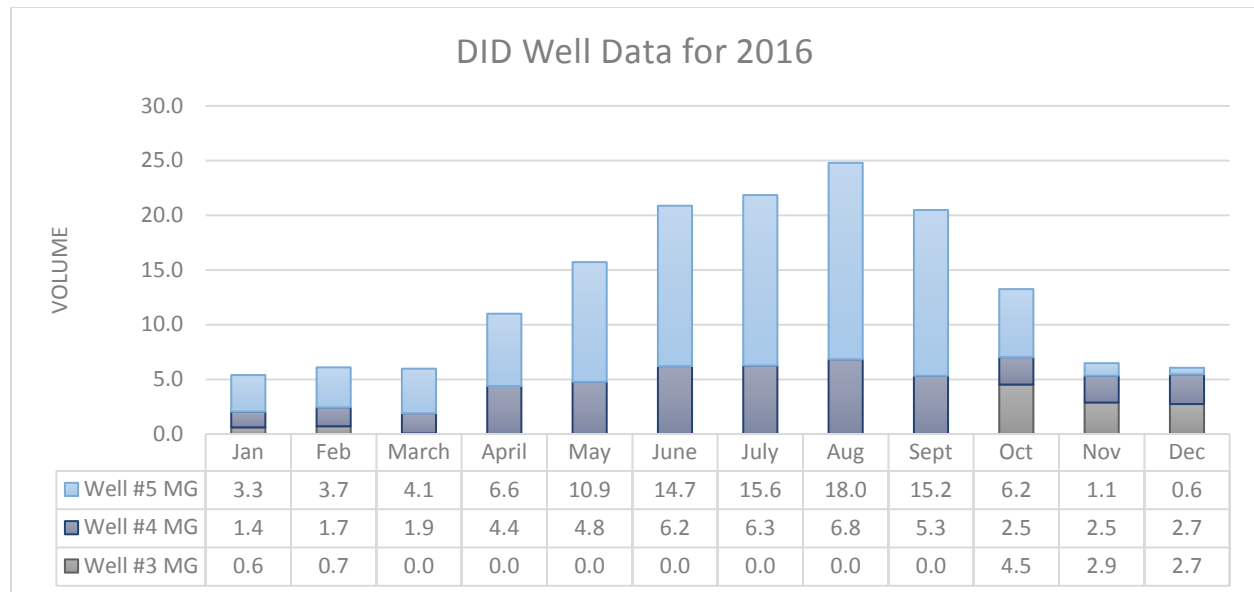


Figure 4 Well Data 2016

The district uses two wells primarily, Well #4 and Well #5. These two wells are actuated by pressure settings. Generally, Well #5 is lead/primary with Well #4 coming on as the pressure drops in the north side of town. Well #3 then only comes on during really high demand occurrences. When a fire was threatening structures near Well #3 it was actuated to improve fire flow. Typical water pressure in the district is around 45psi to 60psi depending on location and demand. At times the operator will switch the lead/primary well to make sure all three main wells get used equally.

Figure 8 below illustrates the potential future demand of the District supply. The California Department of Finance Population Projections for Butte County do not exceed a compound annual growth rate of 1.03 percent. Based on the California Waterworks Standards for calculating adequate maximum daily demand, the District has adequate supplies to accommodate these growth projections.

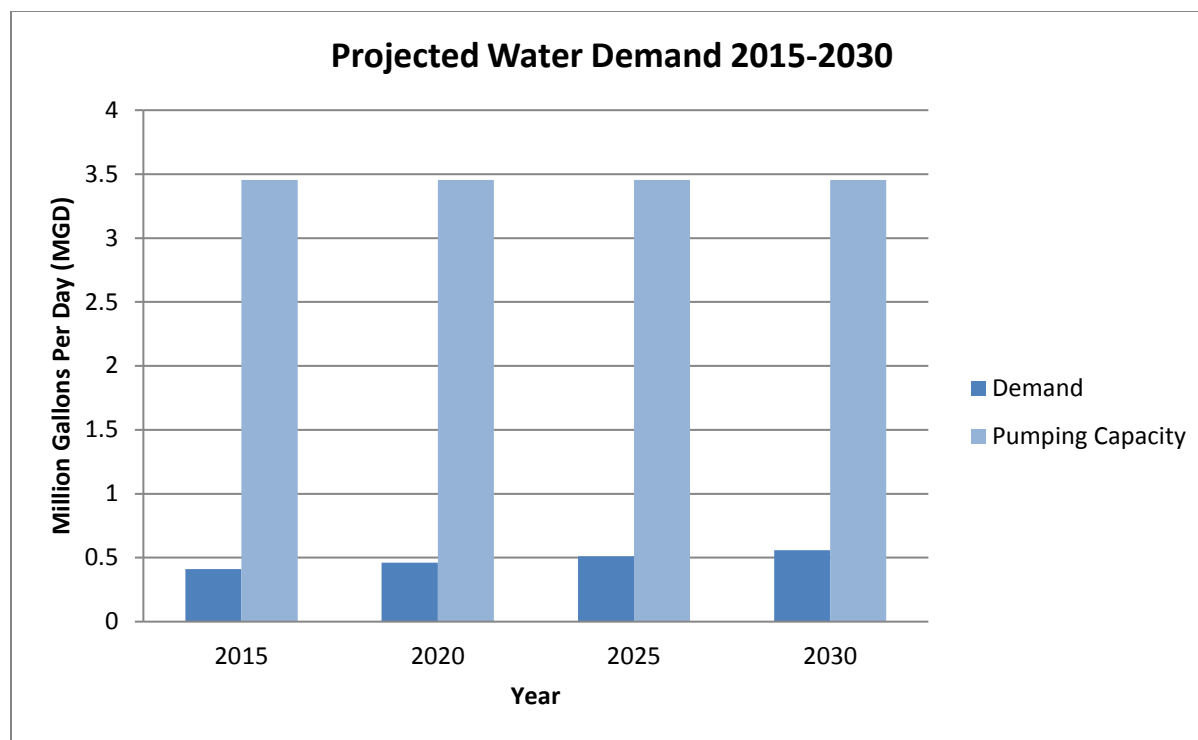


Figure 5 Capacity vs. Demand

During historical periods of drought, the overall water table in the vicinity has dropped, but the District continued to provide uninterrupted service to all of its customers. In a typical water year, demand for water from the District peaks in the months of May through October during the height of the irrigation season. There are no proposed or planned changes in system capacity, and water supplies are determined to be adequate to serve projected demand within the District boundaries. To ensure that they continue to be meet the projected demand, will require the upgrade and improvement of the District's aging infrastructure which is not adequately funded under the current rate structure. As noted above, a new rate structure is to be considered by the district's board of directors in November, 2018.

QUALITY

In California, drinking water quality standards are defined and regulated under the California State Drinking Water Act. The District is classified as a Community Water System, and therefore is required to utilize a State Certified Operator for the operation of the water system. The District Operator engaged by the District is so certified and monitors the delivery system functionality and water quality on a daily basis. The District Operator performs all of the water quality sampling and compiles the data results for required reporting to the State Water Resources Control Board, and generates the required Consumer Confidence Reports which provide consumers with current water quality data. Consumer Confidence Reports (CCR) are available for review through the District offices. The following table outlines the list of constituents included in the CCR.

Constituent	Typical Source of Contaminant
Total Coliform Bacteria	Naturally present in the environment.
Fecal Coliform or <i>E. coli</i>	Human and animal fecal waste.
<i>E. coli</i>	Human and animal fecal waste.
Lead	Internal corrosion of household water plumbing
Copper	Internal corrosion of household plumbing.
Sodium	Salt naturally present in the water.
Hardness	Sum of polyvalent cations present in the water.
Hexavalent Chromium	Discharge from manufacturing facilities.
2, 4, 5-T	Residue of banned herbicide.
Fluoride	Erosion of natural deposits; water additive which promotes strong teeth.
Uranium	Erosion of natural deposits.
Nitrate as N03	Runoff & leaching from fertilizer use; leaching from septic tanks; erosion of natural deposits.
Gross Alpha	Erosion of natural deposits.
Radium 226 and 228	Erosion of natural deposits.
Chloride	Runoff/leaching from natural deposits.
Color	Naturally occurring organic material.
Foaming Agents	Municipal and industrial waste discharges.
Specific Conductance	Substances that form ions when in water.
Sulfate	Runoff/leaching from natural deposits.
Total dissolved solids	Runoff/leaching from natural deposits.
Turbidity	Soil runoff.

Table 4 Consumer Confidence Reports Constituents

District water is treated with chlorine by injection at the wells prior to delivery. The District remains focused on detecting and reporting lead levels as it works to complete an inventory of lead user service lines. With the passage of Assembly Bill 746 the state of California has required that by July 2019, community water systems conduct lead sampling of drinking water in all public K-12 schools constructed before 2010. The community water systems are responsible for the costs associated with collecting drinking water samples, analyzing them and reporting results through this new program. In August 2018, Durham Irrigation District provided services for sampling of drinking water at 10 locations throughout Durham Unified School District campuses. The laboratory returned test results with "non-detectable levels" from all ten sampling locations. According to the U.S. Environmental Protection Agency, there are no safe levels of lead, and long-term exposure to lead causes a number of health problems, especially for pregnant women and young children. California rarely has any occurrences of naturally occurring lead in drinking water sources, but it may become present when water passes through older plumbing fixtures or components associated with service lines and home plumbing containing lead. Durham Irrigation District is committed to the health of the school children and community at-large that it serves and will continue providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

CAPITAL IMPROVEMENTS

The DID Board of Directors in conjunction with the District Operator and the district engineer have developed and maintain and update as necessary a list of capital improvement projects. These proposed projects focus on eliminating existing deficiencies within the system and increasing the reliability of the system for the current users. The proposed capital improvement projects are included in a Capital Improvement Plan (CIP) that will be adopted in conjunction with this document. The following is a brief summary of proposed capital improvement projects.

Lead Service Pipe Study:

Section 116885 of the California Health and Safety Code (H&S Code, Lead Service Lines in Public Water Systems – Senate Bill 1398) requires all public water systems to compile an inventory of known partial or total lead user service lines in use in its distribution system. The deadline to compile the inventory is July 1, 2018. Once an inventory is prepared the public water system will prepare a schedule to replace all known lead user service lines.

Based on age, the District has identified existing pipelines within the system that have the potential of containing lead. Using this information, the District will expose randomly selected service lines and test them to determine if any contain lead. Once this study is complete an inventory will be prepared and submitted to the Division of Drinking Water.

Wharf Hydrant Replacement:

The existing hydrants located in the central service area are primarily wharf hydrants that were installed during the installation of the original water system and are approximately 50-75 years old. A total of 27 wharf hydrants have been identified for replacement or abandonment. A majority of these hydrants do not include isolation valves and are constructed with old steel pipe. The replacement of these hydrants causes a significant impact on the surrounding users as the entire service line has to be shut down.

Valve Replacement:

There are approximately 70 valves located throughout the existing water system. The valves installed in the central service area are approximately 50-75 years old and the types of valves are unknown. These valves will allow for isolation of service areas that currently cannot be isolated if a repair needs to be made. It is proposed that the remaining valves within the central service area should be replaced in conjunction with adjacent pipeline replacement projects, as discussed below.

Meters:

State law requires all water providers to convert flat-rate water customers to metered services by 2025. The District currently has 141 flat rate water customers that need to be converted to a metered service to be in compliance with the State law. The District is considering incentives to induce these customers to install meters prior to 2025.

The reading of meters is a significant operational cost for the District that is then passed on to the consumer in their water rates. The conversion of the standard meters to an

automatic meter reading system is a way to reduce the operational cost for the District and a way to provide better customer service to their users. The District is currently seeking grant funding to begin a meter replacement program. Installations of automatic meters on parcels not currently metered may begin as soon as Spring of 2019.

Pipeline Improvements:

Pipelines in the original central service area are approximately 50-75 years old. These pipelines range from 1 to 6 inches in diameter and are comprised of steel, asbestos cement, galvanized steel, and cast iron. Many of these pipelines have reached the end of their useful life and need to be replaced as age results in increasing numbers of leaks, water loss and service district disruption. The District has prioritized replacement of these lines according to the need and age for many of these pipelines but reserves the right to adjust the priority in the case of an emergency or failure. Upon replacement the District intends to increase the size of each line to increase the available flow and pressure for the users. It intends to replace approximately 11,350 lineal feet of pipeline and 256 service connections from the main to the meter.

There have been three locations within the existing system that have been identified as having a gap or missing section of water main. Infilling these gaps will provide redundant water supply to all users south of Durham Dayton Highway and will increase the available flow and pressure for the users.

Most customers located along Durham Dayton Highway have service connections located in their backyard served off of water mains that run in the adjacent easements. It is difficult to maintain the water lines located in the easements as access is limited. It is recommended that the water mains that are located in these easements be abandoned and the services be connected to the water main located in Durham Dayton Highway.

Well Improvements

The priority well infrastructure improvements are all for Station #3. The building housing the well pump needs to be replaced. The existing pressure tank is approaching the end of its useful life and should be significantly rehabilitated or replaced. Lastly, a new 6" sand filter should be installed in order to maximize the operational capacity of the well, pump and conveyance system.

MSR DETERMINATION 3-1: ADEQUACY OF PUBLIC SERVICES	
	<i>The District has sufficient facilities and resources to provide domestic water services to its existing service area and in its current sphere of influence and any contemplated expansion thereof. The District should continue to provide facility maintenance and upgrades, and consider a public outreach effort promoting water conservation.</i>

MSR DETERMINATION 3-2: ADEQUACY OF PUBLIC SERVICES - CAPACITY

The District has provided adequate supplies of water to its service area for day to day needs during years of normal precipitation as well as through the recent prolonged drought extending from 2014 to 2016. The District's water supply is sufficient to accommodate the projected growth within the current district limits. Expansion of the District limits may require the drilling of an additional well to be able to provide adequate water supply to the expanded area.

MSR DETERMINATION 3-3: ADEQUACY OF PUBLIC SERVICES - WATER QUALITY

The District's water meets all required state and federal water quality standards.

MSR DETERMINATION 3-4: ADEQUACY OF PUBLIC SERVICES - INFRASTRUCTURE NEEDS OR DEFICIENCIES

The District has aging water supply infrastructure that must be repaired or replaced as necessary. The approved Capital Improvement Program provides guidance to the needs of the District.

MSR FACTOR NO. 4: FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES.

This section analyzes the financial structure and fiscal viability of the District. Included in this analysis is the consideration of revenue sources, amount of revenue, stability of revenues, and expenditure sources.

Revenues

The District receives revenue from two main sources:

- **Water Sales**

At Year End 2016, approximately 95 percent (\$244,438) of DID's revenues were received from water sales. Currently, the District has 141 flat rate services and 318 metered services. The current rates are as follows:

Service Rates 2016 (Monthly)	Commercial	Residential					
		Single Family	Duplex	Triplex	4-Plex	5-Plex	Other
Flat Rate	\$23.96	\$39.93	\$49.91	\$74.87	\$98.83	\$124.78	\$678.81

Service Rates 2016 (Monthly)	Misc. Service	Services			
		¾"	1"	1 ½"	2"
Metered Rate	\$415.27	\$21.96	\$27.95	\$33.94	\$39.93

Table 5 DID Service Rates 2016

If the proposed rate structure is approved beginning January 1, 2019, the rates will be as follows:

Service Rates 2019 (Monthly)	Development	Residential			
		¾"	1"	1 ½"	2"
Flat Rate	\$814.57	\$47.92	\$60.91	\$93.32	\$127.76

Service Rates 2019 (Monthly)	Misc. Service	Services			
		¾"	1"	1 ½"	2"
Metered Rate	\$527.04	\$26.35	\$33.95	\$44.81	\$56.79

- **Meter Installations**

At year-end 2016, approximately 2 percent (\$5,850) of DID's revenues were received from meter installations. The number of meters installed within the District varies from year to year. The District has little to no growth so revenue projections have little to do with this revenue stream.

Revenues for the District have been steadily increasing over the last five years. Revenue for the District at year end 2016 was \$257,243, and revenue for year-end 2017 is estimated to be \$260,984. District revenues rose dramatically after the District implemented the Rate Study of 2011 in order to bring water sales in-line with current expenses and are expected to again if the proposed rate structure is approved.

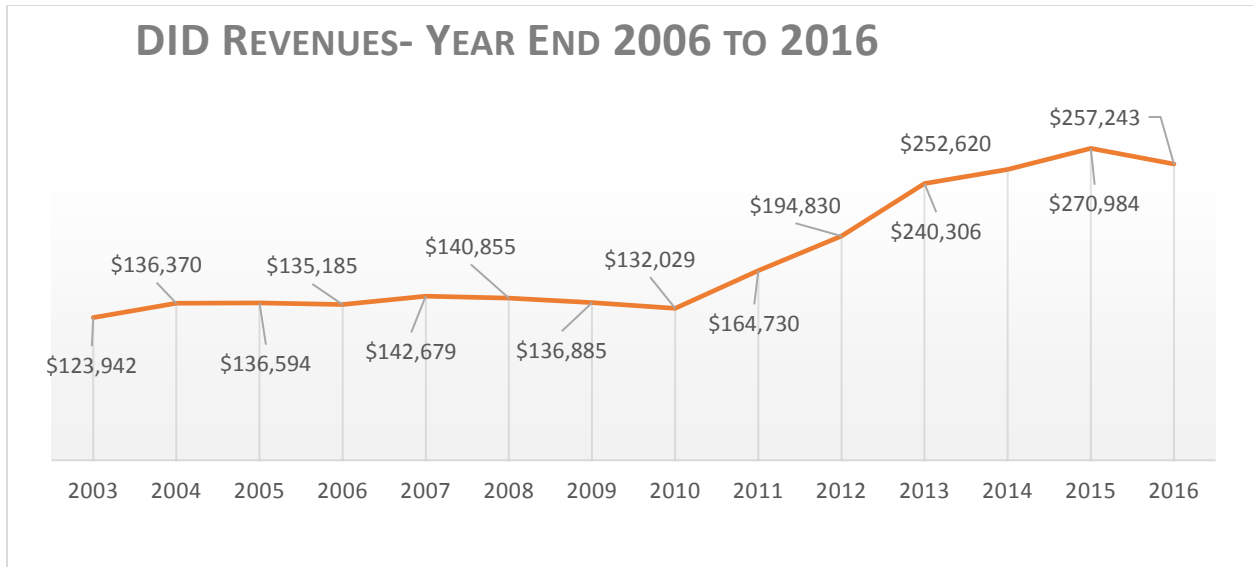


Figure 6 DID Revenues

EXPENDITURES

Total operating and capital expenditures for the District for Year 2016 were \$259,184. Expenditures for DID generally consist of repairs and maintenance, power, water treatment, transmission and distribution, and administration. In Year 2016, administration accounted for 42 percent (\$109,486) of the District's expenditures and power accounted for 19 percent (\$50,053) of the District's expenditures.

As shown in the table below the District's expenditures rose dramatically in 2016 due to the expense of updating one of the system wells.

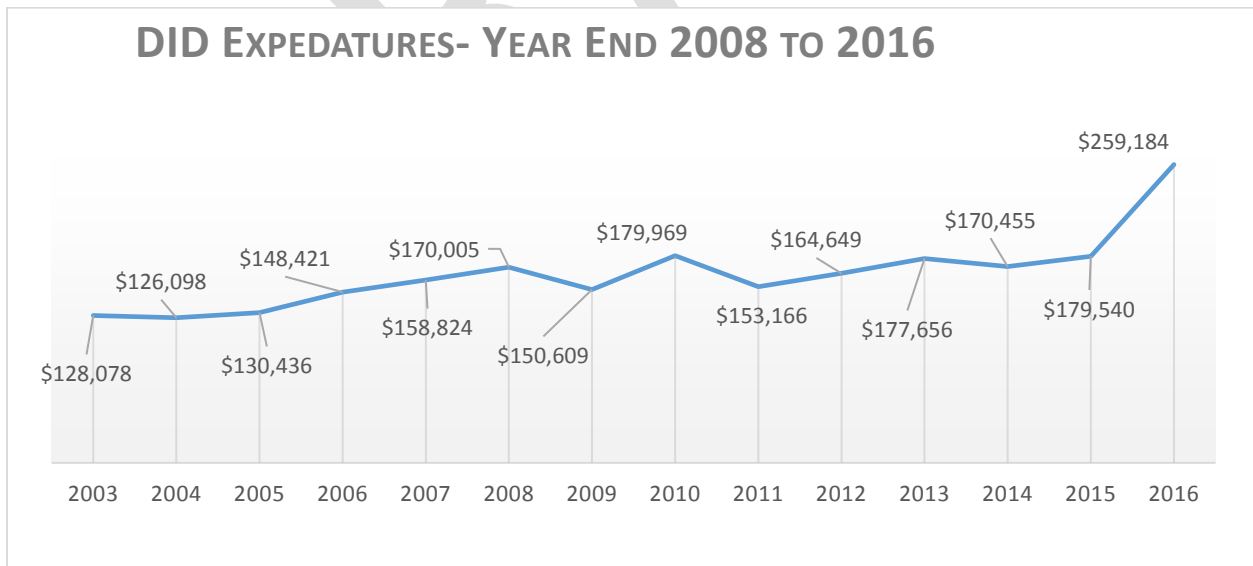


Figure 7 DID Expenditures

DID ANNUAL BUDGETS

The District operates on a calendar year for its fiscal reporting. The District is considering changing its fiscal year to one ending June 30th to be consistent with State and County fiscal years. The District is moving forward with a management proposal that will include annual budgets – the proposal includes an annual budget starting in 2019.

DID maintains a fund balance, and as of December 31 2016, the District had \$317,384 in available (unappropriated) funds. The following table shows the District's available fund balance from Years 2008 through 2016.

DURHAM IRRIGATION DISTRICT UNAPPROPRIATED FUND BALANCES	
As of 12-31-16	\$317,384
As of 12-31-15	\$350,299
As of 12-31-14	\$252,440
As of 12-31-13	\$173,558
As of 12-31-12	\$141,235
As of 12-31-11	\$101,481
As of 12-31-10	\$94,024
As of 12-31-09	\$122,829
As of 12-31-08	\$117,400

Table 6 DID Unappropriated Fund Balances

For public agencies like DID, unappropriated fund balances are not just money in a bank; they are fundamental resources for ensuring reliable core services and community security.³ Public agencies designate money toward savings to balance their budgets, respond to emergencies, keep rates affordable, maintain current infrastructure, and plan for future needed capital improvements. The following are the benefits of a public agency maintaining an adequate level of unappropriated fund balance:

- **Balancing Budgets** – Over the course of the fiscal year, fund balances help balance the ebb and flow of revenues versus expenditures.
- **Emergency Expenditures** – In the event of a disaster, districts cannot afford not to have savings readily available to quickly repair critical local infrastructure and bring core services back online.
- **Affordable Rates** – With appropriate savings, special districts are able to use resources wisely and smooth out the highs and the lows of volatile economic conditions, rather than spend their entire surplus and then seek new revenue or jeopardize services.
- **Infrastructure Maintenance** – Reserves mean pipes are fixed and worn equipment is replaced when necessary without going back to ratepayers for funds to pay for such routine upkeep and maintenance.

³*Special District Reserve Guidelines - A Guide to Developing a Prudent Reserve*. Second edition. California Special Districts Association. 2013.

- Planning for the Future – A long-term, thoughtful approach to public infrastructure requires the foresight to plan and save for future needs.

The District’s unappropriated fund balance has varied significantly over the years in response to unanticipated expenses, budget deficits, and reduced revenues. The District should endeavor to increase the unappropriated fund balance every fiscal year to ensure that there is adequate funding available for any unforeseen circumstances.

BUDGET DEFICITS

As shown in the following table and graph, DID experienced budget deficits (where expenditures exceeded revenues) from 2006 to 2010. The following table and chart show the revenue and expenditures for these fiscal years and the revenue/expenditure variances.

Fiscal Year	Revenues	Expenditures	Variance Favorable (Unfavorable)
2006	\$ 135,185	\$ 148,421	(\$13,236)
2007	\$ 142,679	\$ 158,824	(\$16,145)
2008	\$ 140,855	\$ 170,005	(\$29,150)
2009	\$ 136,885	\$ 150,609	(\$13,724)
2010	\$ 132,029	\$ 179,969	(\$47,940)
2011	\$ 164,730	\$ 153,166	\$11,564
2012	\$ 194,830	\$ 164,649	\$30,181
2013	\$ 240,306	\$ 177,656	\$62,650
2014	\$ 252,620	\$ 170,455	\$82,165
2015	\$ 270,984	\$ 179,540	\$91,444
2016	\$ 257,243	\$ 259,184	(\$1,941)

Table 7 DID Budget Deficits

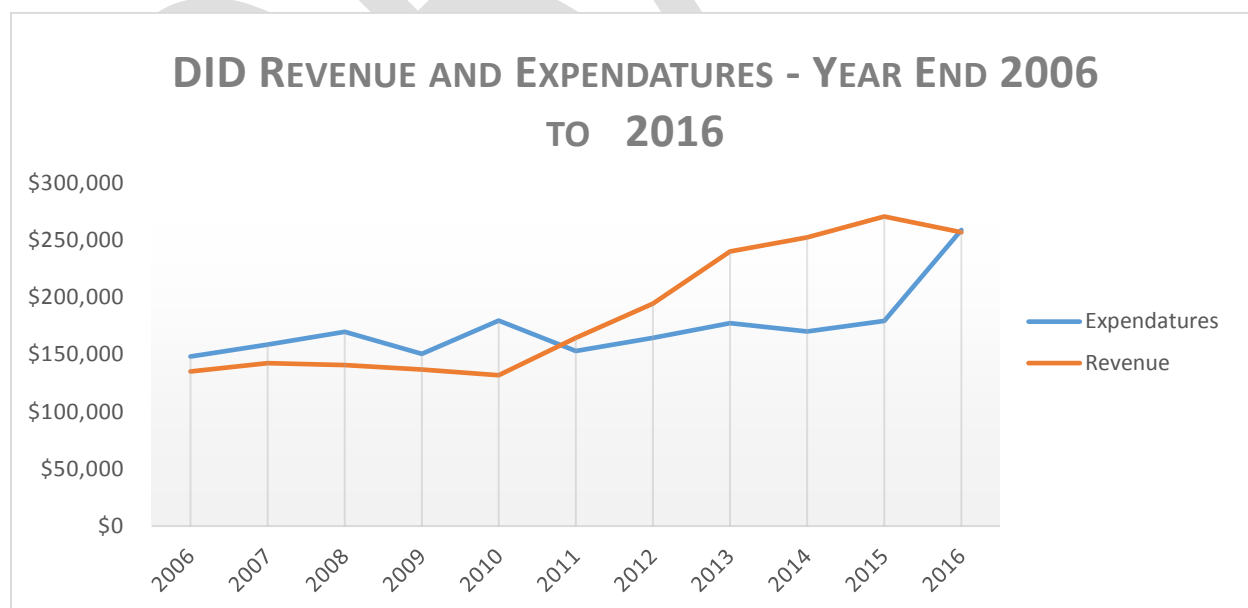


Figure 8 Revenue and Expenditure Comparison

Budgets are meant to balance revenues and expenditures so that a special district can provide needed services with the resources available. However, the reality is that budgets will rarely work out precisely as planned, leading to operating deficits (when expenditures exceed revenues) or operating surpluses (when revenues exceed expenditures.) As long as these deficits or surpluses are minor or intermittent, they do not constitute a material problem for a local government and should not be cause for concern. It is when there is a persistent pattern of larger surpluses or deficits that there should be concern about the budgeting practices of the agency.⁴

An agency experiencing a budget deficit can use fund balance or other reserves, if available, to balance the budget. However, using the fund balance is a one-time course of action that cannot fix a structural imbalance. A district experiencing continuous budget deficits may be having financial difficulties that need to be identified and corrected. If budget deficits cannot be correct, a district may have to reduce service levels if new sources of funding cannot be obtained.

From 2006 to 2009 the District contracted with California Water Service Co. – Chico for water distribution, testing, and maintenance services. During this time period the District had an unfavorable variance between revenues and expenditures. In 2010, the District commissioned a fee study to analyze its water rates and connection fees in light of these variances. The District had not raised rates in 11 years. As a result the District implements a rate and fee increase at that time effective April 1, 2011. As noted in Figure 6 above, the increase brought the District out of its budget deficits. (In 2016 the budget deficit can be attributed to the upgrading of facilities at a system well.)

ANNUAL FINANCIAL AUDIT/FINANCIAL REPORTS

State law requires that every public agency retain the services of a certified public accountant to prepare that agency's annual financial audit. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in an agency's financial statements.

The District's financial statements include all transactions for which the District is financially accountable. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

The District performs the annual audits in compliance with the discussion above. The audits performed from 2010 to 2016 did not identify any deficiencies. However, the

⁴ *Citizens' Guild to Local Budgets*, Office of the New York State Comptroller-Division of Local Government and School Accountability. 2010.

District's Annual Financial Report for 2009 found one deficiency in internal control and one significant deficiency in the internal control of financial reporting. A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than material weakness, yet important enough to merit attention by those charged with governance. As identified in the District's comprehensive financial report for 2009, the weaknesses found in the District's internal control of their finances were:

❖ **Significant Deficiency 2009-1**
Internal Control- Segregation of Duties

Condition

Currently the District only has one individual who maintains the accounting and reporting records.

Criteria

Sufficient segregation of duties are needed to be in place by the District in order to have good internal controls over financial accounting and reporting.

Cause

Due to the small size of the District, there is not enough need to have more than one individual in the accounting department. As a result this individual is responsible for maintaining and handling all of the accounting transactions.

Effect

Failure to have sufficient segregation of duties could result in greater risk of fraud and errors in financial accounting and reporting.

Recommendation

We recommend that the District review areas that need additional segregation of duties and consider involving a member of the board to oversee and be responsible for those areas strengthen internal controls.

Management's Response

The District is unable to implement full segregation of duties due to the small size of the organization but will consider implementing additional internal controls to help compensate for this deficiency.

Current Status

The District is now reviewing the manner in which the District is administering and managing its business and operations with an eye towards improving such through new and enhanced equipment and computer technology, including software better tailored for its needs, new and updated policies and procedures resulting in more efficient management and reporting of business and financial transactions, and obtaining third party preparation of monthly and annual financial statement.

❖ **Deficiency 2009-2**
Internal Control- Financial Statement Preparation

Condition

Financial statements are not being prepared in accordance with GAAP.

Criteria

The controller lacks the knowledge and skills necessary to apply Generally Accepted Accounting Principles (GAAP) in preparing the District's financial statements.

Cause

The District's bookkeeper has not been sufficiently trained in financial reporting under GAAP.

Effect

The financial statements are not properly presented to be audited and have to be adjusted during the audit.

Recommendation

We recommend additional training be provided to the bookkeeper in the area of financial accounting and reporting under GAAP.

Management's Response

The District's bookkeeper works only part-time and it would not be cost effective to provide additional training but consideration will be made to use an outside consultant to assist with the financial reporting.

Current Status

Assistance was provided and the financial statements have met the auditor's needs in years since. The steps now being considered by the District as discussed above should remedy this concern.

Future Challenges and Issues Related to Finances

The Capital Improvement Program for DID creates a future financial challenge for the District. The proposed projects focus on eliminating existing deficiencies within the system and increasing the reliability of the system for the current users. The cost associated with the proposed capital improvements totals over \$3.9 million dollars. The Districts current rates cannot support these improvements and the District is currently searching for grant funding and/or alternative funding sources.

MSR DETERMINATION 4-1: FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES - REVENUE	
	<i>The rate increase that went into effect April 1, 2011 brought the District out of its budget deficits and it now operates with a balanced budget. The rates continue to be reviewed and an increase is being evaluated for implementation in 2019.</i>

MSR DETERMINATION 4-2: FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES - EXPENDITURES

Normal expenditures for the District include salaries, and occasional purchases of new equipment. The District's expenditures do not appear to be excessive and are necessary to provide services to the more populated areas of the District.

MSR DETERMINATION 4-3: FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES – FUND BALANCE

As of December 31, 2016, the District's General Fund had an unappropriated fund balance of \$317,384 which is available for District operations. The District should endeavor to increase the unappropriated fund balance every fiscal year to ensure that there is adequate funding available for any unforeseen circumstances.

MSR DETERMINATION 4-4: FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES – FINANCIAL AUDIT

The District's Annual Financial Report for 2009 found one deficiency in internal control and one significant deficiency in the internal control of financial reporting. Measures taken have resulted in no additional deficiencies being noted. The District should continue to ensure that all future financial audits are prepared for each fiscal year in a timely manner consistent with State law and with general accounting and financial practices.

MSR DETERMINATION 4-5: FINANCIAL ABILITY OF AGENCIES TO PROVIDE SERVICES – FUTURE FINANCIAL CHALLENGES

The Districts proposed Capital Improvement Projects exceed \$3.9 million dollars and cannot be financed under the existing rate structure. The District should be very transparent to the community about this critical need and consider rate increases and actively seek grant funding or other sources of funding to help facilitate these improvements.

MSR FACTOR NO. 5: STATUS OF, AND OPPORTUNITIES FOR, SHARED FACILITIES.

The Division of Drinking Water (now under the State Water Resources Control Board) has for years encouraged voluntary consolidations of public water systems in order to provide high quality water supply. The District has worked with both the Durham Recreation and Park District and the Durham Unified School District to consolidate the provision of water services and provide consistent high quality service delivery to both Districts. The District is willing to work with any other public water system located within its service area to consolidate in the future.

Aside from cooperative water service opportunities, the District may also benefit from considering other shared resources opportunities with all other special districts in the

Durham area, such as Durham Recreation and Park District, County Service Area No. 37 (Street Lighting), Durham Mosquito Abatement District and Durham Mutual Water Company. As Durham is a small, close knit community and the above districts all have very small staff and limited resources, there is likely some benefit to the consideration of shared administrative functions and other logistical benefits such as common public facilities to improve public access.

MSR DETERMINATION 5-1: STATUS OF, AND OPPORTUNITIES FOR, SHARED FACILITIES	
	<i>The District is now the service provider from both DPRD and DUSD, having taken over and modified their existing systems. The District has entered into consolidation agreements with both DPRD and DUSD in order to provide improved delivery of high quality supply.</i>

MSR DETERMINATION 5-2: STATUS OF, AND OPPORTUNITIES FOR, SHARED FACILITIES	
	<i>The District may benefit from shared resources with other local districts and is encouraged to seek conversations with other districts to improve overall service delivery efficiencies in the Durham community.</i>

MSR FACTOR NO. 6: ACCOUNTABILITY FOR COMMUNITY SERVICE NEEDS, INCLUDING GOVERNMENTAL STRUCTURE AND OPERATIONAL EFFICIENCIES.

DID BOARD OF DIRECTORS

Pursuant to Division 11 (Section 20848) of the California Water Code, and with the original petition to the Butte County Board of Supervisors, a three member Board of Directors is responsible for overseeing the operations of the District. The Board of Directors is responsible for appointing the District Operator.

Each director must be a voter and landowner in the District. Directors are elected by voters who are residents of the District and serve four-year terms.

Each Board member receives \$100 per month. Regular meetings of the Board are held at 6:00 pm on the second Tuesday of each month at the District’s office at 9405 Midway, Durham. The Board is responsible for compliance with the provisions of the Brown Act and obtains legal services from the John Jeffery Carter Law Office. Meeting announcements are posted at the District office. Generally, very few members of the public attend Board meetings.

Public notices by the District are published in the local paper and/or included with monthly bills. Past minutes are available at the District office. When the Board does not

have a quorum, action items are carried over to the next meeting, with the exception of authorizing payment of reoccurring bills. The president of the Board is responsible for compliance with the Brown Act. District officials noted that the current sphere of influence should be expanded so development in areas immediately adjacent or near the district's current service boundaries is occurring, including the Black Diamond Holdings, LLC, Keeney, and Birchord Projects.

The current DID Board of Directors are:

Position	Trustee Name	Term Ends
President/General Manager	Raymond Cooper	2020
Director	Matt Doyle	2018
Director	Kevin Phillips	2018

DID STAFFING

The District day to day business is managed by the District Operator, who is contracted position appointed by the DID Board of Directors and serves at the will of the Board. The current District Operator has been with the District for over 7 years.

The District has the following employees:

- Water System Operator – Independent Contractor
- Administrative Assistant/bookkeeper – Part Time District Employee
- Meter Reader – 2 - Part Time District Employees

The management structure of DID is very simple and reasonable for the type of operations undertaken by the District. No alternative structures or reorganizations of staff would result in more efficient operations, and the existing structure is considered appropriate.

DISTRICT TRANSPARENCY

Governmental transparency promotes accountability and provides information for citizens about what their government is doing. A public agency's transparency is necessary to provide the residents of the agency a thorough knowledge of the services the agency provides, how it operates, how and by who the agency is governed, and the financial status of the agency. Information on an agency should be easily accessible.

The District's transparency is very limited, which makes it difficult for the residents of the District to obtain information on the District. As required by State law, the District does provide notice of upcoming Board meetings by posting a notice at the District office. Board meeting minutes, and other information, can be obtained through the District Operator. All of these measures do require residents to make an effort to either attend District Board meetings or visit the District office.

To provide for greater transparency, many special districts within California have websites that allow for easy access to district services, information and documents. Approximately 50 percent of the special districts within California have a website and

the primary reasons that districts do not have a website include money, personnel, legal requirements, and no penalties for not having a website.

DID does not currently have a website, but is in the process of establishing one. The District’s website will include, at a minimum, the following information:

- District contact information, including the names of the District Operator and Board of Directors.
- Board of Directors meeting notices.
- Board of Directors agendas and staff reports/memorandums
- Adopted annual budget
- Financial audits/reports
- Map of the District
- District policies and regulations
- List of enterprise systems (SB 272)
- Financial Transaction Reports
- Compensation Reports

OPERATIONAL EFFICIENCIES

The District is exposed to various risks of losses related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The District transfers risks that may arise from these and other events through the purchase of property and liability insurance through the Special District Risk Management Authority (SDRMA), an intergovernmental risk sharing Joint Powers Authority. The District carries general and auto liability coverage, employee dishonesty coverage, property loss, and boiler and machinery coverage. The District also maintains worker’s compensation insurance through the State Compensation Insurance Fund.

FUTURE CHALLENGES AND ISSUES TO OPERATIONAL EFFICIENCIES

State law requires all water providers to convert flat-rate water customers to metered services by 2025. The District currently has 141 flat rate water customers that need to be converted to a metered service to be in compliance with the State law.

The reading of meters is a significant operational cost for the District that is then passed on to the consumer in their water rates. The conversion of the standard meters to an automatic meter reading system is a way to reduce the operational cost for the District and a way to provide better customer service to their users.

MSR DETERMINATION 6-1: OPERATIONAL EFFICIENCIES	
	<i>The District is a member of the SDRMA to efficiently cover the Districts insurance needs.</i>

MSR Determination 6-2: Cost Avoidance Measures

	<p><i>The District utilizes appropriate cost avoidance measures in its operations, including contracting out services which would be too costly for the District to provide. Currently, revenues exceed expenditures; thus, no other forms of cost avoidance are warranted.</i></p>
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MSR DETERMINATION 6-3: TRANSPARENCY - WEBSITE	
	<p><i>The Durham Irrigation District is in the process of establishing a website. Once established the website will allow the District to post District contact information, public meeting notices, Board of Directors meeting minutes, financial documents (budgets, audits), and District maps, greatly increasing the District's transparency.</i></p>

MSR DETERMINATION 6-4: TRANSPARENCY - IDENTIFICATION OF DISTRICT OFFICE	
	<p><i>The Durham Irrigation District maintains an office at 9418C Midway, Durham, California 95938. Its office hours are Tuesdays and Thursdays from 8:00 am to 12:00 noon.</i></p>

MSR DETERMINATION 6-5: OPERATIONAL EFFICIENCIES	
	<p><i>The District has one full-time consultant, the District Operator, one part-time administrative assistant/bookkeeper/secretary, and two part-time meter readers. The overall management structure of DID is sufficient to perform basic services to the District.</i></p>

MSR DETERMINATION 6-6: FUTURE CHALLENGES TO OPERATIONAL EFFICIENCIES	
	<p><i>The District has 141 flat rate water customers that will need to be converted to metered services prior to 2025. This conversion is State mandated. At the time of this conversion it is recommended to convert the District from standard meters that require monthly readings by District staff to automatic meters that can be read with limited staffing. The District is now considering providing incentives to induce flat rate customers to install meters prior to 2025.</i></p>

MSR FACTOR NO. 7: ANY OTHER MATTER RELATED TO EFFECTIVE OR EFFICIENT SERVICE DELIVERY, AS REQUIRED BY COMMISSION POLICY.

POTENTIAL BOUNDARY CHANGES

Over the last ten (10) years there have been several proposed subdivisions within the Durham area but outside of the Durham Irrigation District boundary and Sphere of Influence (SOI). These proposed subdivisions have mostly proposed the use of on-site community water systems or private wells but are within a distance that DID could provide service. In these cases DID has reviewed service options with the applicants and the projects have not moved forward. In the future DID would like to be able to provide service and orderly development within the community of Durham.

MSR DETERMINATION 7-1: POTENTIAL BOUNDARY CHANGES

An increase in the SOI will provide DID the ability to provide water services to new developments in an orderly and efficient manner and demonstrate a public policy preference for public water systems to serve new development within the Community of Durham.

DRAFT

SPHERE OF INFLUENCE PLAN REVIEW FACTORS FOR THE DURHAM IRRIGATION DISTRICT

The Durham Irrigation District currently encompasses 489 acres of land in the unincorporated area of Butte County. The 489 acres includes 544 parcels and the adjacent road right-of-way.

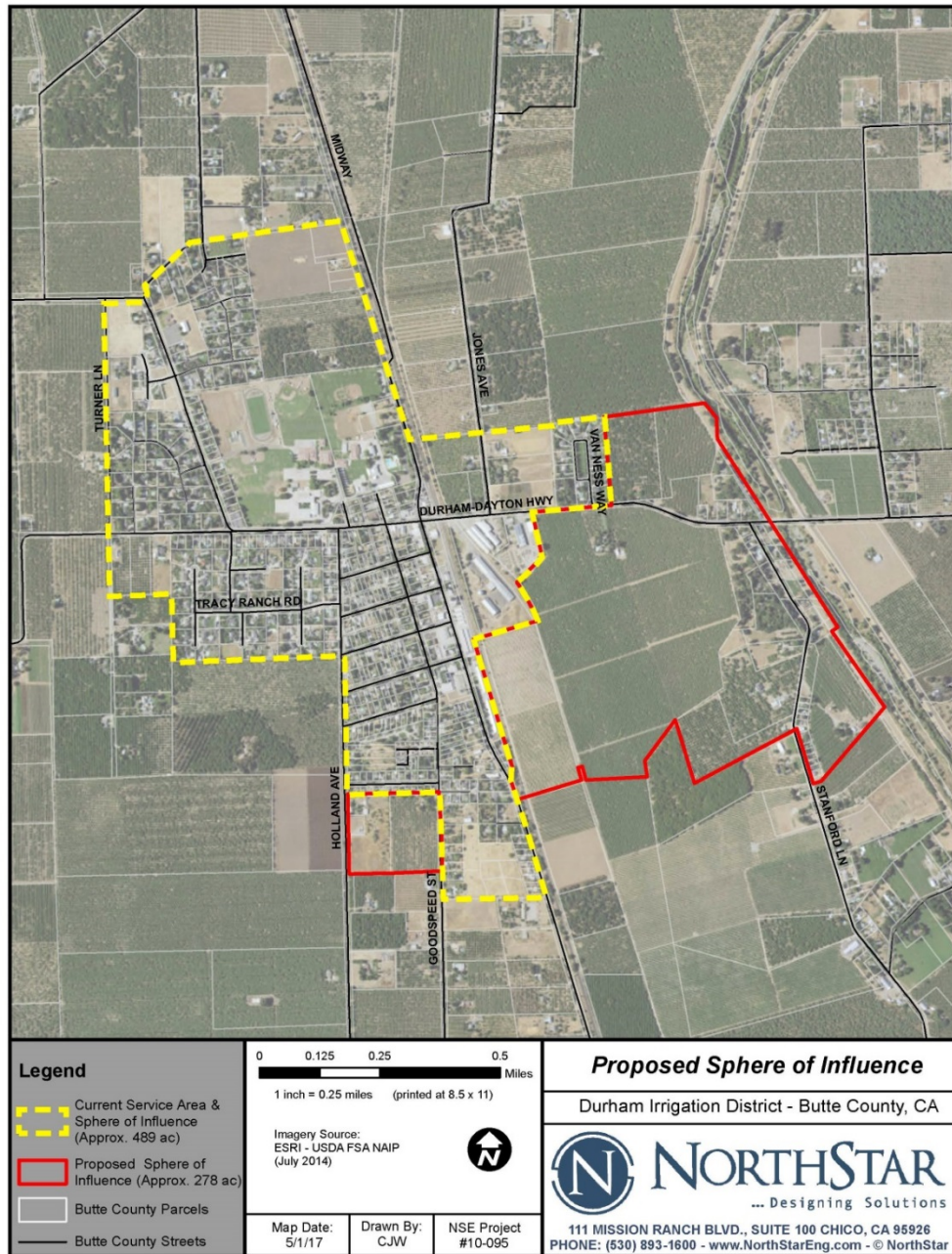


Figure 9 Proposed Sphere of Influence

The District is also located within the Durham-Dayton-Nelson Area Plan boundaries, which was adopted in 1992 and incorporated into Section I of the Area and Neighborhood Plans Element of the Butte County General Plan 2030. The General Plan

establishes area-wide land use policies for this area and designates it as the “Durham Urban Reserve” area. The District is proposing to add this area to its SOI. If such expansion of the SOI is approved, 59 new parcels and adjacent road right of ways, totaling 278 acres will be added to its SOI. Therefore, all parcels proposed to be added to the District’s SOI as well as the existing District boundaries would be located within the Durham Urban Reserve Area.

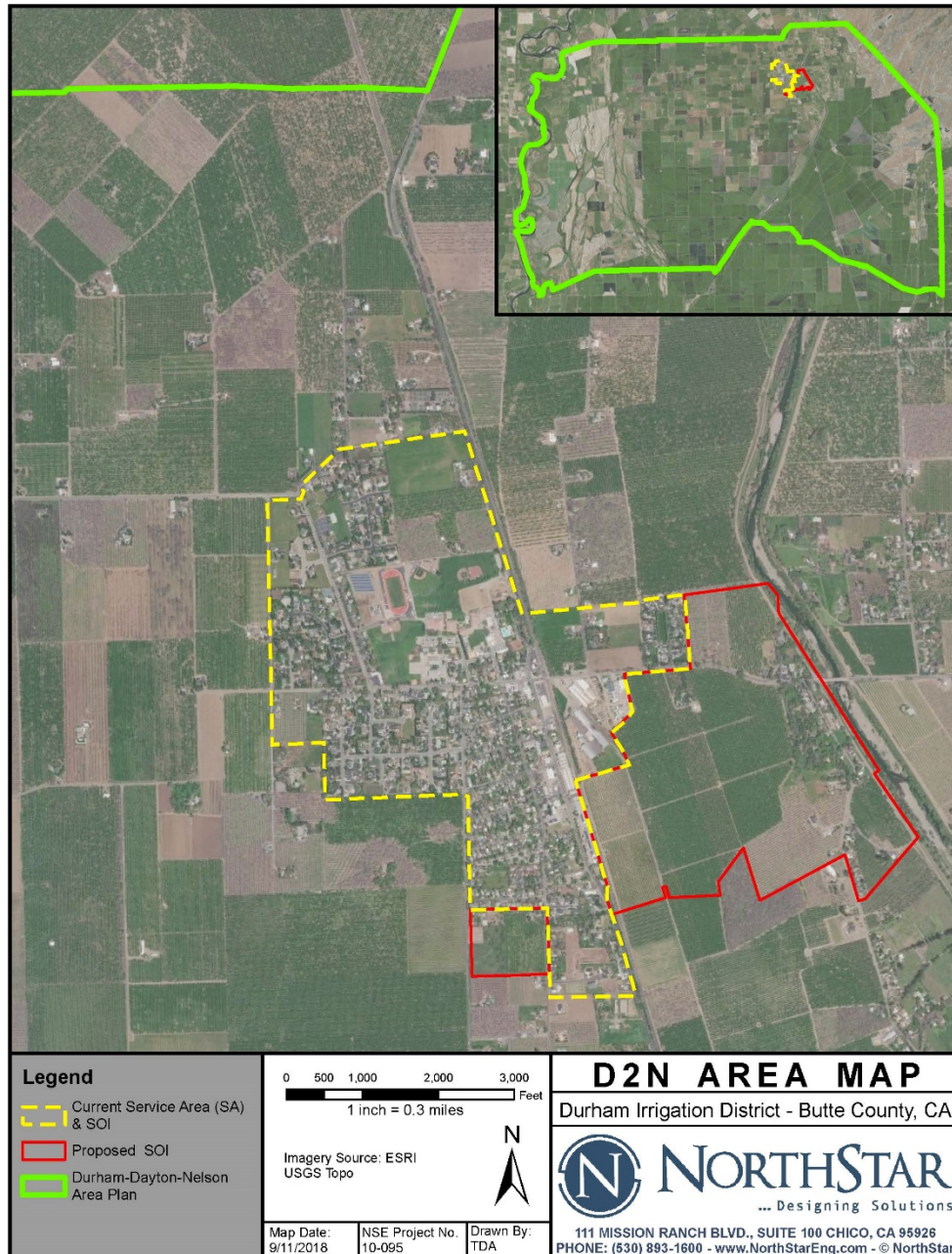


Figure 10 D2N Area Map

There are numerous factors to consider in reviewing an SOI Plan, including current and anticipated land uses, facilities, and services, as well as any relevant communities of interest. Updates generally involve a comprehensive review of the entire SOI Plan, including boundary and SOI maps and the District's MSR. In reviewing an agency's sphere, the Commission is required to consider and prepare written statements addressing five factors enumerated under California Government Code Section 56425(e), as listed below.

1. The present and planned land uses in the area, including agricultural and open space lands;
2. The present and probable need for public facilities and services in the area;
3. The present capacity of public facilities and adequacy of public services which the agency provides, or is authorized to provide;
4. The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency; and,
5. For an update of an SOI of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere of influence.

SOI FACTOR NO. 1: THE PRESENT AND PLANNED LAND USES IN THE AREA, INCLUDING AGRICULTURAL AND OPEN-SPACE LANDS.

As was noted previously, the Durham Irrigation District (DID) was established in 1948 to serve the unincorporated community of Durham and the surrounding area. DID's jurisdictional boundaries consist of the unincorporated community of Durham and the surrounding area. There are no clear significant growth areas; zoning restrictions limit the growth in the area. The Durham-Dayton-Nelson Area Plan established area-wide land use policies that provide less potential for future development than had been allowed under the former Durham Area Plan, which governed the area prior to the adoption of the Durham-Dayton-Nelson Area Plan. Any future growth is dictated by requests for annexation submitted to Butte LAFCO.

Most of the 489 acres within the District consist of urban uses on smaller parcels, most of which are located within the community of Durham. Land uses within the District include single-family residential uses, commercial uses, industrial uses, and public uses. There is very little potential for new development within the boundaries of the District. A large portion of the community of Durham is zoned for medium and medium-high density residential uses. However, the lack of a public sanitary sewer system in the Durham area precludes the creation of small parcels or the construction of additional dwellings on existing developed parcels. The area of the District outside of the Durham community and urban reserve area is mostly zoned for agricultural uses on parcels with a minimum parcel size of 20 to 40 acres. One potential development within the District is located on a 40-acre parcel located on the east side of Durham, which is proposed to be developed with 40 1-acre single-family residential parcels.

General Plan Land Use Designations and Zoning Classifications within existing SOI					
General Plan Designation		Zoning Classification		Parcels	Acreage
Very Low Density Residential	VLDR	Very Low Density Residential	VLDR	178	256.60
Very Low Density Residential	VLDR	Planned Development	PD	14	11.80
Medium Density Residential	MDR	Medium Density Residential	MDR	200	48.07
Medium High Density Residential	MHDR	Medium High Density Residential	MHDR	69	22.33
Medium High Density Residential	MHDR	Planned Development	PD	21	2.45
Retail	RTL	General Commercial	GC	34	9.33
Industrial	I	General Industrial	GI	16	21.85
General Industrial	GI	General Industrial	GI	1	11.03
Public	P	Public	P	11	72.88
TOTAL				544	456.34

Table 8 General Plan Land Use Designations and Zoning Classifications within existing SOI

General Plan Land Use Designations and Zoning Classifications within Proposed Additions to the SOI					
General Plan Designation		Zoning Classification		Parcels	Acreage
Very Low Density Residential	VLDR	Very Low Density Residential	VLDR	59	271.63
TOTAL				59	271.63

Table 9 General Plan Land Use Designations and Zoning Classifications within Proposed Additions to the SOI

In Figure 14, below, you can see the distribution of zoning within the current and proposed Sphere of Influence.

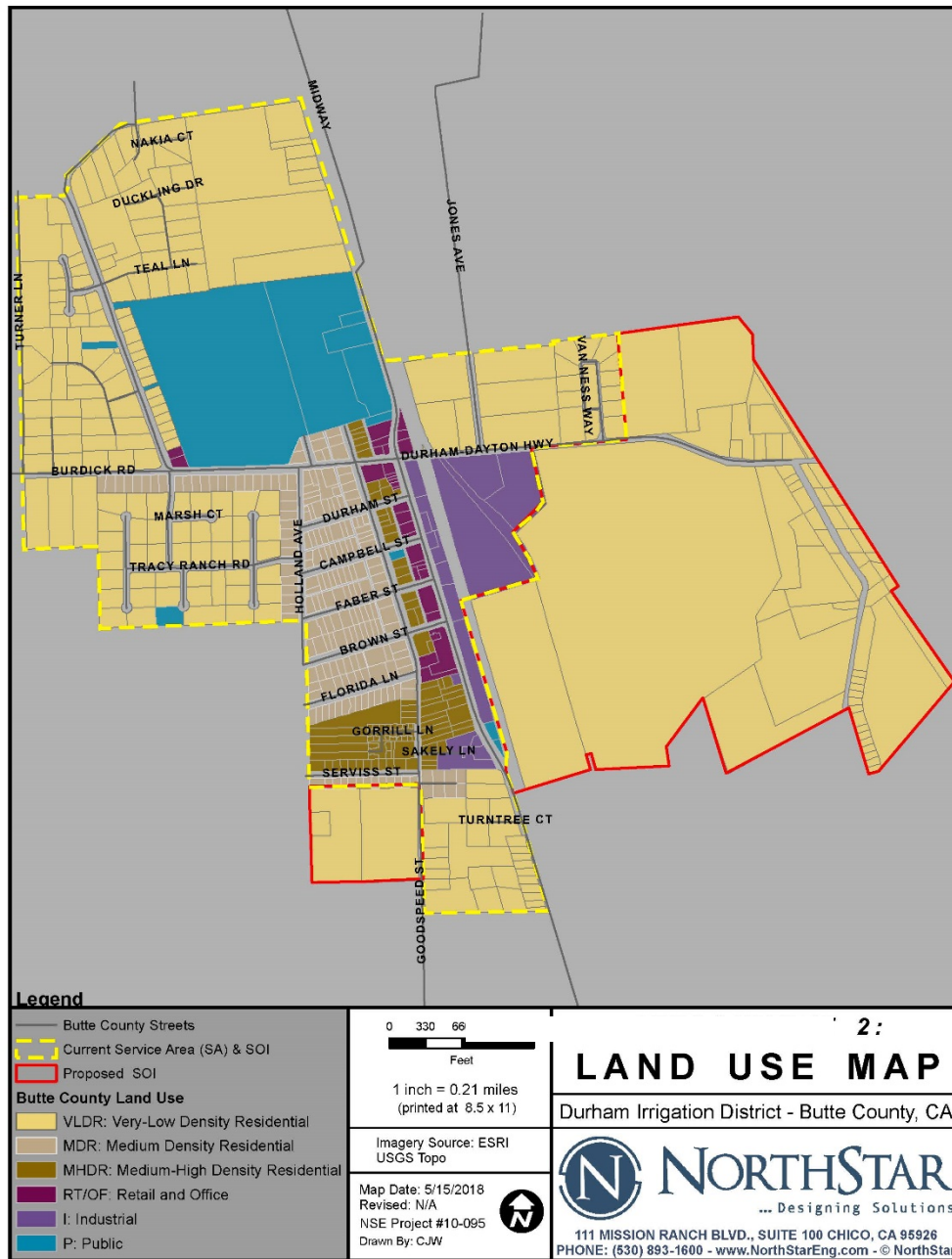


Figure 11 SOI with Land Use

SOI DETERMINATION 1-1: PRESENT AND PLANNED LAND USES	
	<p><i>Land uses within the boundaries of the Durham Irrigation District include residential, commercial, industrial, public, and agricultural uses. Future growth within the boundaries of the District is expected to occur primarily within the Durham urban reserve area.</i></p>

SOI FACTOR NO. 2: THE PRESENT AND PROBABLE NEED FOR PUBLIC FACILITIES AND SERVICES IN THE AREA.

Over the last ten (10) years there have been several proposed subdivisions within the Durham area but outside of the Durham Irrigation District boundary and existing SOI. These proposed developments have mostly considered the use of other private wells on a community water system rather than connecting to the DID system. However, the Butte County General Plan 2030 Policy D2N-P6.8 "Require subdivisions adjacent to existing water systems to connect to them" (Area and Neighborhood Plans Element). In these cases DID has reviewed service options with the applicants, although the proposed subdivision projects have not moved forward. In the future DID would like to be able to provide service to them for the orderly development of the community of Durham.

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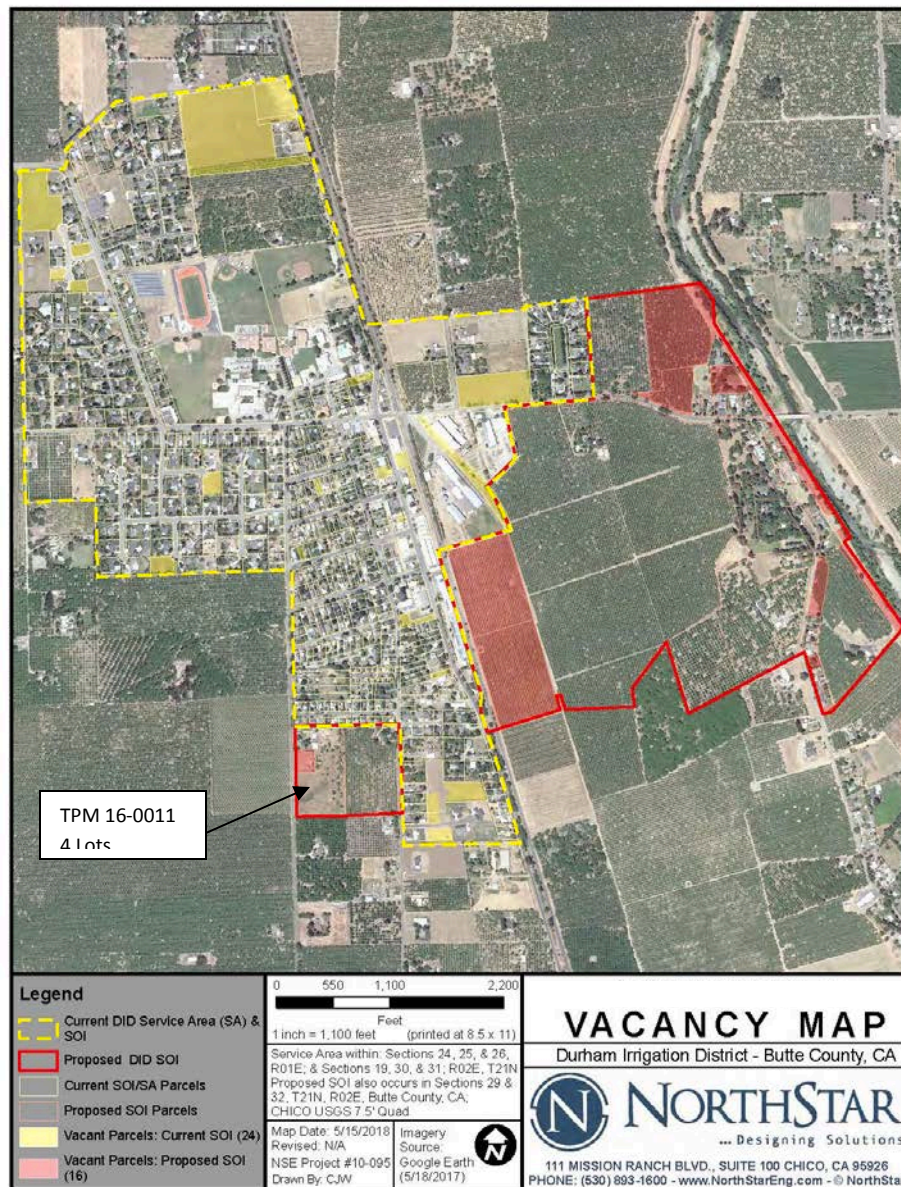


Figure 12 SOI Vacancy Map

Figure 15 shows the locations of vacant parcels in the DID current and proposed Sphere of Influence. Currently there are 24 vacant parcels in the District and the proposed SOI will add an additional 16 parcels. The vacancy count does not take into account the parcels that do not meet the maximum density per the Butte County Land Use code.

As presented in MSR Factor No. 3 (Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies), the District has adequate water conveyance infrastructure to provide service to existing customers. However, by expanding the SOI, especially in the eastern part of the District, it is likely that an additional well would need to be installed to meet the Title 22 requirements to

provide adequate capacity for both pressure and use demands and insure the required redundancy to serve additional parcels to be added to the District's SOI. Additional water line infrastructure would also be necessary to serve future development.

SOI DETERMINATION 2-1: THE PRESENT AND PROBABLE NEED FOR PUBLIC FACILITIES AND SERVICES IN THE AREA

The District has adequate water conveyance infrastructure to provide service to existing customers. However, by expanding the SOI it is likely that an additional well would need to be installed to provide adequate water and required redundancy to serve additional parcels proposed to be added to the District's SOI. Additional water line infrastructure would also be necessary to serve future development.

SOI DETERMINATION 2-2: THE PRESENT AND PROBABLE NEED FOR PUBLIC FACILITIES AND SERVICES IN THE AREA

With demonstrated capabilities and adequate water supplies, the District is the logical choice to provide domestic water services to new development within the Durham community and the Commission encourages such consideration by affected local agencies with land use approval.

SOI FACTOR No. 3: THE PRESENT CAPACITY OF PUBLIC FACILITIES AND ADEQUACY OF PUBLIC SERVICES THAT THE AGENCY PROVIDES OR IS AUTHORIZED TO PROVIDE.

As presented in MSR Factor No. 3 (Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies), the District has been providing adequate supplies of water to its service area for day to day needs during years of normal precipitation. The District's water supply is sufficient to accommodate the projected growth within the current district limits. Expansion of the District limits may require the drilling of an additional well to be able to provide adequate water supply to the expanded area.

SOI DETERMINATION 3-1: PRESENT CAPACITY OF PUBLIC FACILITIES AND ADEQUACY OF PUBLIC SERVICES

The District has been providing adequate supplies of water to its service area for day to day needs during years of normal precipitation. The District's water supply is sufficient to accommodate the projected growth within the current district limits. Expansion of the District limits may require the drilling of an additional well to be able to provide adequate water supply to the expanded area.

SOI FACTOR NO. 4: THE EXISTENCE OF ANY SOCIAL OR ECONOMIC COMMUNITIES OF INTEREST IN THE AREA IF THE COMMISSION DETERMINES THAT THEY ARE RELEVANT TO THE AGENCY.

DID’s jurisdictional boundaries consist of the greater Durham area, which includes the unincorporated urban community of Durham.

SOI DETERMINATION 4-1: EXISTENCE OF ANY SOCIAL OR ECONOMIC COMMUNITIES OF INTEREST IN THE AREA	
	<i>The jurisdictional boundaries of the Durham Irrigation District include the unincorporated community of Durham.</i>

SOI FACTOR NO. 5: FOR AN UPDATE OF A SPHERE OF INFLUENCE OF A CITY OR SPECIAL DISTRICT THAT PROVIDES PUBLIC FACILITIES OR SERVICES RELATED TO SEWERS, MUNICIPAL AND INDUSTRIAL WATER, OR STRUCTURAL FIRE PROTECTION, THAT OCCURS PURSUANT TO SUBDIVISION (G) ON OR AFTER JULY 1, 2012, THE PRESENT AND PROBABLE NEED FOR THOSE PUBLIC FACILITIES AND SERVICES OF ANY DISADVANTAGED UNINCORPORATED COMMUNITIES WITHIN THE EXISTING SPHERE OF INFLUENCE.

The Durham Irrigation District provides public facilities or services related municipal and industrial water, and structural fire protection. However, per the Census tract data the Durham community would not be considered a disadvantaged unincorporated community (DUC). There are areas within the Durham Irrigation District service area, specifically islands of multifamily housing and smaller single-family residences, that if analyzed separately from the tract data may potentially qualify as a DUC

SOI DETERMINATION 5-1: DISADVANTAGED UNINCORPORATED COMMUNITIES	
	<i>Per the Census tract data, as a whole, the Durham community would not be considered a disadvantaged unincorporated community (DUC).</i>

Sphere of Influence Findings and Recommendations

Based on the MSR and SOI determinations contained in this document, the Commission:

1. Finds that the Durham Irrigation District effectively provides domestic water service to the parcels within the District.
2. Finds that residential development in Durham Irrigation District’s SOI, can be efficiently served by connection to the District’s domestic water system.
3. *Finds that because the District has demonstrated capabilities and adequate water supplies, the District is the logical choice to provide domestic water services to new development within the Durham community and the Commission encourages such consideration by affected local agencies with land use approval.*

Appendix B
Capital Improvement Program

**CAPITAL IMPROVEMENT
PROGRAM
FOR
DURHAM IRRIGATION DISTRICT**

Prepared for:

**Durham Irrigation District
PO Box 89
Durham, CA 95938**

Prepared by:



**111 Mission Ranch Blvd. Ste. 100
Chico, CA 95926**

July 2018

Prepared by or under the supervision of:

Robin Kampmann, PE
RCE 73943

For Review

The following presents the recommended Capital Improvement Program (CIP) for the Durham Irrigation District's (DID) existing water system. The DID Board of Directors in conjunction with the water system operator and the district engineer developed a list of capital improvement projects. These proposed projects focus on the replacement of aging infrastructure, regulatory compliance, eliminating existing deficiencies within the system, increasing system reliability and improving operational efficiencies.

The CIP provides descriptions of the recommended projects along with estimates of probable construction costs. The costs are presented in 2018 dollars and include the following contingencies and project cost allowances:

- Construction Contingency: 15%
- Project Cost Allowances:
 - Design/Engineering: 10%
 - Construction Management: 10%
 - Project Administration: 8%

Recommended Capital Improvement Program

Infrastructure Projects

Lead Service Pipe Study:

Section 116885 of the California Health and Safety Code (H&S Code, Lead Service Lines in Public Water Systems – Senate Bill 1398) requires all public water systems to compile an inventory of known partial or total lead user service lines in use in its distribution system. The deadline to compile the inventory was July 1, 2018. Once an inventory is prepared the public water system is required to propose a schedule to replace all known lead user service lines.

Based on Age, the District has identified existing pipelines within the system that have the potential for containing lead. Using this information a study shall be conducted to expose randomly selected service lines and perform the adequate testing to determine if the lines contain lead. Once this study is complete an inventory will be prepared and submitted to the Division of Drinking Water.

Wharf Hydrant Replacement:

The existing hydrants located in the central service area are primarily wharf hydrants that were installed during the installation of the original water system and are approximately 50-75 years old. A total of 24 wharf hydrants have been identified. A majority of these hydrants do not include isolation valves and are constructed with old steel pipe. The isolation of these hydrants causes a significant impact on the surrounding users as the entire service line has to be shut down. A comprehensive review of the existing hydrant locations throughout the district has been completed. It is proposed to remove/abandon 17 of the existing wharf hydrants due to redundancy, remove and replace 9 of the existing wharf hydrants at their current location and to install 5 new hydrants in alternative locations that better serves the Districts fire needs.

Valve Replacement:

There are approximately 70 valves located throughout the existing water system. The valves installed in the central service area are approximately 50-75 years old and the type of valves are unknown. These valves will allow for isolation of service areas that currently

cannot be isolated if a repair needs to be made. It is proposed valves within the central service area should be replaced in conjunction with adjacent pipeline replacement projects.

Meters:

State law requires all water providers to convert flat-rate water customers to metered services by 2025. The District currently has 141 flat rate water customers that need to be converted to a metered service to be in compliance with the State law. In addition without meters it is difficult for the District to determine the actual water usage within the District and the potential water loss due to the aging infrastructure. If water saving measures are implemented within the District the District currently cannot monitor the usage to determine if the measures are affective.

The reading of meters is a significant operational cost for the District that is then passed on to the consumer in their water rates. The conversion of the standard meters to an automatic meter reading system is a way to reduce the operational cost for the District and a way to provide better customer service to their users.

SCADA System:

The existing wells are not all alarmed therefore daily site visits by the operator are required to make sure the wells are operating correctly. By installing a XiO Cloud Based SCADA system at each well the alarm system would notify the operator if there was a problem with the system. The operator could then make adjustments to the system remotely thru the cloud based system via their cell phone or computer. Other benefits of the XiO system include recording of system data such as water quality measurements, flow measurements and aquifer monitoring. The XiO system has an unlimited historical data storage capacity allowing for easily accessible historical data. By installing a flow measuring system as each well, in conjunction with the conversion from flat rate services to metered services, the District can better understand its water use and the potential loss within the aging infrastructure.

Pipeline Improvements:

Pipelines in the original central service area are approximately 50-75 years old. These pipelines range from 1 to 6 inches in diameter and are comprised of steel, asbestos cement, galvanized steel and cast iron. Many of these pipelines have reached their useful life and need to be replaced as age results in increasing numbers of leaks, water loss and service district disruption. The District has prioritized replacement of these lines according to the need and age for many of these pipelines but reserves the right to adjust the priority with Board action in the case of an emergency or failure. At the time of replacement the District is proposing to increase the size of each line to increase the available flow and pressure for the users. It is proposed to replace approximately 11,350 lineal feet of pipeline and 256 service connections from the main to the meter.

There have been three locations within the existing system that have been identified as having a gap or missing section of water main. Infilling these gaps will provide redundant water supply to all users south of Durham Dayton Highway and will increase the available flow and pressure for the users.

Most customers located along Durham Dayton Highway have service connections located in their backyard served off of water mains that run in the adjacent easements. It is

difficult to maintain the water lines located in the easements as access is limited. It is recommended to abandon the water mains that are located in these easements and connect the services to the water main located in Durham Dayton Highway.

The location of the recommended pipeline improvements are shown on Exhibit A: Capital Improvement Projects.

Well Improvements

- Replace Station #3 building.
- Station #3 pressure tank rehabilitation.
- Install a new 6" sand filter at Station #3.
- Install new generator at Station #3.

Exhibits

Exhibit A: Capital Improvement Projects

Exhibit B: Cost Summary