

WATER CONVEYANCE ADVISORY COMMITTEE
PROJECT REVIEW & RECOMMENDATIONS

DATE: February 6, 2017
AGENDA ITEM #: 1
PROJECT #: LDA16-038
APPLICANT: John & Rose Ascuaga
APN #: 1419-00-001-028 & 033

There are several USGS identified Blue Line Streams through the Ascuaga property that traverse the Schneider Ranch and then reenter the Ascuaga property. In order to ensure all parties can access the identified streams for irrigation maintenance an easement should be placed over these streams. However, not being sure how this area receives its irrigation, staff wishes to have this item heard publically and have the Committee make recommendations for any required easements.

20.100.070 Irrigation facilities.

A. If proposed development includes or directly impacts existing irrigation facilities, an irrigation plan must be prepared by a registered engineer to analyze and provide mitigation for the impacts of the proposed development. The irrigation plan, together with the drainage plan for the development, must be publicly noticed per section 20.20.030 and presented to the water conveyance advisory committee for their review and written comment to the community development department and to any affected towns or districts.

1. The plan must include the location, size, and capacity of all drainage and irrigation facilities within the proposed area of development. In addition the plan must address upstream areas and facilities tributary to the site and downstream from the site which will be affected or impacted by the proposed development to the point of discharge.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

No information on irrigation patterns, rates, or structures has been provided. It is unclear if these streams serve an irrigation function.

Provide information on the pipeline within the 20' irrigation pipeline easement including: starting and ending location of pipe line, flow rates, and function.

2. In all development, the impact on downstream facilities and lands must be analyzed and addressed in the plan. New development is responsible for either improving downstream drainage facilities to meet the increased peak flows as a result of the proposed project or to provide facilities which will result in no increase in peak runoff from that which existed before the development. If downstream peak flows are increased by the project, the plan must provide mitigation to the point of discharge as approved by the county and any affected towns and districts.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

No improvements are contemplated with this parcel map. The addition of four lots to the overall land is not enough to generate differences in runoff.

3. The plans must incorporate water quality and erosion controls in conformance with the *Handbook of Best Management Practices* for all drainage water leaving the site. The use of irrigation ditches or sloughs for the discharge of urban runoff is highly discouraged and in no case will be permitted without the written notice to, and reasonable efforts to obtain consent of, the affected downstream ditch users. In no case may urban drainage leaving a development be of a quality that will adversely affect downstream water uses.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

4. As a part of the plan, a ditch may be redesigned or upgraded for low maintenance through the use of riprap, channel lining, culvert or pipe. Landscaping of ditch easements in an urban setting is permitted as part of an approved plan of the water conveyance advisory committee, but must not inhibit the integrity of the ditch bank or the intended maintenance and access function of the ditch easement.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

B. No development may interfere with the historic custom and use of waters adjacent to and upstream and downstream from the development. Any changes in conveyance facilities or the course of conveyance facilities, including the abandonment of part or all of a conveyance facility, must be done in a reasonable manner with due regard to the rights of the owners of the easement or right-of-way and shall be subject to approval of the water conveyance committee, the county, any affected towns or districts or irrigation companies.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

C. Standards. Except as set forth herein, all improvements for drainage and irrigation facilities shall be in conformance with this title and the design criteria and improvement standards manual.

Satisfies Requirement **Does Not Satisfy Requirement** **Not Applicable**

To Be Determined

D. Rights-of-way for water conveyance. All development subject to this title must designate irrigation and drainage rights-of-way or easements as required to implement the approved irrigation and drainage plan for the development. Right-of-way widths must be appropriate for the operation and maintenance of the facilities as shown on the approved plan. Required right-of-way widths will vary depending on the size, type, location and accessibility of the improvements as shown on the plan. In no case shall the rights-of-way be less than 20 feet in width. For open irrigation ditches, a right-of-way width equal to the top width of the ditch plus 32 feet must be provided to allow adequate access for maintenance and servicing of the ditch. A minimum 20 foot right-of-way must be provided, including cases where the irrigation or drainage is placed in an underground conveyance. These criteria for rights-of-way and piping for irrigation must be met unless otherwise provided by the design criteria and improvement standards manual and approved by the water conveyance advisory committee.

Satisfies Requirement **Does Not Satisfy Requirement** **Not Applicable**

To Be Determined

20' pipeline easement must continue along the entire length upstream of parcel 2 to allow new owners to complete maintenance on the irrigation line.

E. Where the development contains lots of one net acre or less the right-of-way for an open irrigation or drainage ditch may not be included in the net or gross lot area.

Satisfies Requirement **Does Not Satisfy Requirement** **Not Applicable**

To Be Determined

F. Maintenance. When water conveyances are placed in an underground culvert or pipe, the plans must address and provide for maintenance of the facilities.

1. If the underground facilities lie under a street or alley dedicated for public use, the town, general improvement district, or other governmental entity in whose jurisdiction the street or alley is located is responsible for maintenance of trash racks, sand and oil separators and the pipe or culvert.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

2. If the underground facilities cross private property, then the private property owner is responsible for maintenance of trash racks, sand and oil separators and routine maintenance of the pipe. When such property is subdivided, the subdivider shall provide security or other adequate assurances for continuing maintenance.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

Note stating individual property owners are responsible for maintenance of the irrigation pipe should be placed on the final map

3. When underground facilities cross a combination of public and private property, responsibility for maintenance will be shared by the private and public entities upon whose property the facilities are located. In the absence of a written agreement to the contrary, shares of the costs of maintenance will be in direct relationship with the length of the pipe within such private or public property.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

No crossing of public property

4. If the person or entity responsible for maintenance fails or refuses to conduct such maintenance, then the downstream user may enter upon such property and perform the maintenance. The person or entity responsible for maintenance will be liable to the downstream user for the reasonable costs of the maintenance, plus interest, attorneys' fees and court costs.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

Note stating such should be placed on the final map

5. The county, on recommendation of the water conveyance advisory committee, may require the developer or property owner, as a condition of development approval, to estimate the annual cost of routine maintenance, and post security to pay for the maintenance, in advance, for a period not to exceed twenty years. In the event security is required and posted, the developer or property owner, as the case may be, or its successor in interest, shall be entitled to a proportionate release of the security on an annual basis

after the maintenance is performed. If the developer, property owner or successor fails or refuses to conduct the maintenance, then the downstream user may perform the maintenance, in which case the downstream user shall have recourse to the security for reimbursement of the reasonable costs of the maintenance. Recourse to the security shall not be an exclusive remedy, and does not prevent the downstream user from bringing an action for the balance due, plus reasonable costs, attorneys' fees, and interest. (Ord. 1036, 2003; Ord. 1012, 2002; Ord. 763, 1996; Ord. 539, 1991; Ord. 390, 1981)

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

Not recommended

20.100.080 Irrigation facilities standards.

A. Standards. All ditch rights-of-way must be provided access for maintenance in accordance with these standards and restrictions:

1. Cross fencing of ditches on parcels of 20 net acres and greater may be permitted upon recommendation of the water conveyance advisory committee.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

Fencing limits not provided

2. Lots or parcels of less than 20 net acres must not be designed to require cross fencing of the ditch.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

Fencing limits not provided

3. On parcels of less than 20 net acres, livestock access to the ditch right-of-way may be permitted as long as the integrity of the ditch bank is maintained.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable
 To Be Determined

Not discussed

4. Where ditch rights-of-way are cross fenced there must be a 16-foot-wide metal gate providing continuous access for ditch maintenance.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

5. Where a project creates parcels or lots of one acre or less, underground piping for irrigation and storm drainage must be required, unless otherwise approved by the water conveyance advisory committee.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

No lots under one acre

6. Where a road or driveway intercepts a ditch and its construction would restrict or prohibit access along the ditch, ramps or other facilities as approved on the drainage and irrigation plan must be provided for both the upstream and downstream faces to facilitate access by ditch maintenance vehicles.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

7. The culvert installed in a ditch or ditch crossing installed as a consequence of a subdivision or parcel map must be capable of passing 150 percent of the hydraulic capacity of the ditch up to the capacity of a 48-inch culvert. Beyond the capacity of a 48-inch culvert, the culvert must be capable of passing 100 percent of the hydraulic capacity of the ditch. The installation must not change velocity in any manner which increases erosion. Erosion controls may be required to the satisfaction of the water conveyance advisory committee.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

No information provided on the pipeline size or its expected irrigation capacity

8. Piping of ditches exclusive of road, street, alley, or driveway crossings must be capable of passing at least 150 percent of the hydraulic capacity of the ditch, up to the capacity of a 48-inch pipe. Beyond the capacity of a 48-inch pipe, the pipe must be capable of passing 100 percent of the hydraulic capacity of the ditch. Piped ditches must have manholes and other points of access to provide for routine maintenance and cleaning in accordance with the design manual. The installation must not change velocity in any manner which increases erosion. Erosion controls may be required to the satisfaction of the water conveyance advisory committee. The committee may recommend, and the final decision maker may allow, variations in the capacity of the

pipe to not less than 100% of the hydraulic capacity of the ditch when supported by sound engineering principles and practical consideration.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

9. When a culvert greater than 24 feet in length is installed as a consequence of subdivision or a parcel map there must be a trash rack installed on the upstream side. The trash rack must be constructed in compliance with the Standard Details for Public Works Construction.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

Applicant should discuss the need for trash racks and also for manholes for maintenance

10. A development which is entitled to water from a ditch must provide a headgate and measuring device diversion structure in the ditch, approved by the federal water master or the state engineer.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

11. A development which is entitled to water from a ditch must form a homeowner's association which will be obligated to their proportionate share of the ditch's maintenance.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

I would assume due to the limited number of created parcels, each owner could maintain the portion of the pipe that crosses their property. The requested notes on the map should be sufficient.

12. For any development with lots ten acres in size or smaller which are entitled to irrigation water, the developer must provide an irrigation management plan which designates administrative responsibility. The drainage or irrigation plan must show how water will be supplied to and tailwater collected for each lot within the development.

Satisfies Requirement Does Not Satisfy Requirement Not Applicable

To Be Determined

13. Where a ditch is piped, where water rights are transferred from a ditch or where drainage goes into a ditch, there must be a continuing responsibility to pay a proportionate share of the costs of ditch maintenance, which can be calculated in terms of the actual costs of ditch maintenance or as though the water rights were still delivered through the ditch by the owner of the water rights. This is required until a change is approved either by all parties holding water rights in the ditch or by the water conveyance advisory committee.

_____ **Satisfies Requirement** _____ **Does Not Satisfy Requirement** _____ **Not Applicable**

_____ **To Be Determined**

B. Use of the ditch right-of-way for the storage or disposal of wood, debris, garbage or other waste or any other use of the right-of-way area which impedes the access along or maintenance of the ditch is prohibited. (Ord. 1012, 2002; Ord. 763, 1996; Ord. 539, 1991; Ord. 390, 1981)

_____ **Satisfies Requirement** _____ **Does Not Satisfy Requirement** _____ **Not Applicable**

_____ **To Be Determined**

STAFF RECOMMENDATION:

Recommend approval subject to additional easements along the USGS Blue Lined Streams if they are used for irrigation. Additional easements are also needed along the irrigation pipeline to allow for downstream users to complete maintenance of the irrigation line.



COMMUNITY DEVELOPMENT

1594 Esmeralda Avenue, Minden, Nevada 89423

Erik Nilssen, P.E.
COUNTY ENGINEER

775-782-9063
CELL: 775-790-7975 • FAX: 775-782-6297
website: www.douglascountynv.gov

Planning Division
Engineering Division
Building Division
Code Enforcement

M E M O R A N D U M

TO: Water Conveyance Advisory Committee

FROM: Erik Nilssen, County Engineer

DATE: February 6, 2017

SUBJECT: LDA 17-002 – Helen Johnson Tentative Parcel Map

The subject property is located at 521 Mottsville Lane. The property contains significant irrigation flows. Irrigation is delivered from the Brockliss Slough through the property to the Johnson Slough which flows along the eastern portion of the property. It appears all irrigation channels within this project are located within the required easements. The land division does not propose any construction that would alter historic flows. This map was required to gain Water Conveyance Advisory Committees' approval in case any required easements or potential problems were not identified by staff.