April 20, 2018

Ms. Sarah Kirchgessner
Senior Planner
Development Services
City of Elk Grove

Dear Ms. Kirchgessner:

The Laguna Creek Watershed Council (LCWC) welcomes the opportunity to provide the City of Elk Grove Planning Department (City) with our initial views on the proposed Sheldon Farms North Project (Project). The City's early engagement of LCWC and other stakeholders interested in the Project is much appreciated. Hopefully this input will assist the City in securing a Project site design that contributes to the City's goal of creating and maintaining a sustainable community. As noted in the Sustainability Element of the City's General Plan (Sustainability Element) this will require integrating sustainable principles into the City's actions and decisions, adapting to changing conditions and technologies, and staying informed of innovations and current best practices. Toward that end, LCWC will confine its comments to the following topics which comprise its core interests: flood and stormwater management, river friendly landscaping, and natural resource preservation and enhancement.

Project Overview

Sheldon Farms South is new development immediately adjacent to Laguna Creek. Covering approximately 15 acres, the development provides much needed multi-family housing.

General Comments

A few weeks ago the watershed council submitted comments on Sheldon Farms North (North). Many of the same comments apply to the South development; they follow these general comments. There are some unique characteristics of the North development however that warrant special consideration. A major concern is that some of the project will be constructed within the 100 year floodplain; most of it within the 500 year floodplain. As you as aware, the General Plan prohibits construction within the 100 year floodplain, state law restricts construction within the 200 year floodplain. There are methods that historically have been widely used to "pad up" property to "remove" it from the 100 year floodplain. This approach is neither in keeping with the spirit of the General Plan and state law, but it also poor environmental planning. Given the unpredictable climate future, it is also unwise and compromises public safety to allow development, especially dense development, to advance so close to a waterway. The Council recommends that the size of the development be scaled back to completely

eliminated all buildings that fall within the 200 year floodplain without modifications or grading of the land. In addition, the design should be modified to include a 50 foot setback from the edge of the 200 year floodplain to provide for trails, aquatic/riparian habitat, and flood safety, given the unpredictable nature of California's weather. Given the elimination of some of the units from the proposed plan, the development will still be a valuable addition to the housing stock in Elk Grove.

Further it is unclear to the Council how this project will be able to meet the goals of the Central Valley NPDES permit which requires new development to meet the pre-project hydrology. There is little interior open space or indication of low impact development practices. Given the large driveway areas (interior streets), this would be an excellent place to provide interior drainage if pervious concrete or other similar pervious material designed for exactly this scenario were to be integrated into the project. There are surely other best management practices that could be designed to meet the goals of managing hydromodification. The two large Contech vaults identified in the plans would surely help to manage runoff. However, these types of facilities are known to malfunction due to the lack of maintenance over time. The interior filters need periodic attention to maintain them in good working order. Commonly this is not done. This is the reason that LID features that require less maintenance are often the preferable alternative. The project proponents should identify how they will meet the standards included in the current NPDES permit.

Following are similar comments as submitted for the Sheldon Farms North project.

Goals That Should Guide the City's Review of the Project

The Sustainability Element cites the following planning goals that LCWC believes are most relevant to its core interests:

- A safe community, free from manmade and natural hazards (Focused Goal 1-1). Given the Project's location adjacent to the floodway comprising the lower reach of Laguna Creek, this goal addresses the need for a site design that anticipates long term changes in the intensity of watershed precipitation and runoff.
- Excellence in the design of new development (Focused Goal 1-5). This goal addresses the need for the site design to incorporate current green infrastructure techniques and practices for managing stormwater runoff so that the Project does not contribute to increased erosion and pollution of Laguna Creek.
- Development which recognizes environmental constraints and is designed and operated to minimize impacts on the environment (Focused Goal 3-1). This goal addresses the need for the site design to minimize impacts on the region's

strained water resources by among other things incorporating native and drought-tolerant landscaping.

- Natural resources managed and protected for the use and enjoyment of current and future generations (Focused Goal 3-3). This goal addresses the need for the site design to preserve, protect, and enhance the natural resources that are present in the open space corridor surrounding Laguna Creek in the Project area.

The discussion below highlights how these goals could be used to guide the City's review of the Project.

Sustainable Flood Risk Management

As noted the Project site is adjacent to the floodway comprising the lower reach of Laguna Creek. This floodway receives runoff from the entire watershed upstream of the Project area. In its undeveloped state, the Project site serves as a potential overflow area for watershed discharges that exceed the carrying capacity of the floodway. As the plans for developing this overflow area take shape, City planners should take care to ensure that the site design is resilient enough to anticipate changes in watershed runoff. Over the assumed 50- to 100-year life of the Project, rainfall patterns in the watershed are likely to become more extreme with the potential for more intense flood events and more prolonged dry periods. The site design should be able to withstand more intense floods without exposing the new commercial and residential structures to inundation damage. This cannot be demonstrated merely by reference to the runoff produced by the most current calculation of the "100-year flood". This calculation reflects what has occurred in the past not what may occur in the future particularly if the climate continues to warm. Accordingly, City planners should require proponents to test the Project design by running plausible watershed runoff scenarios that are more extreme than the current 100-year flood to determine the circumstances in which structural damage could occur. Based on the results of this exercise, it might be appropriate to make the site design more resilient to flooding by increasing the setback of the developed area from Laguna Creek, enlarging the water quality basin, slightly raising the first floor elevation of structures, or incorporating other such measures into the site design.

Sustainable Stormwater Management

As indicated in the Sustainability Element as well as the current NPDES Regional Stormwater Permit, sustainable stormwater management strategies are a design approach that use natural processes to mitigate impacts of increased runoff and stormwater pollution that occur as a result of urban development. These negative environmental impacts include erosion and pollution of local water bodies. In an effort to avoid these detrimental impacts, the Central Valley Regional NPDES Permit requires

that the hydrograph pre and post development should match. To accomplish this, green infrastructure techniques and practices include bioretention facilities, vegetated bioswales, tree box filters, dry wells, and permeable pavements be used at the site. Water quality basins are often tied to these LID features to accommodate high volume events. These strategies recharge the groundwater, filter out contaminants from runoff, capture water which can be used for irrigation, and reduce the need for expensive curb and gutter infrastructure and maintenance. It is unclear from the plans if the current design will accomplish the hydromodification requirements in the permit. This requirement is complementary to many elements of the Sustainability section of the General Plan, including:

- S-17-Action 1 - Encourage minimization of the amount of impervious surface areas at new development sites. Possible solutions may include the use of permeable paving materials (e.g., porous concrete, porous asphalt, modular paving, gravel, lattice concrete blocks, and porous bricks) for parking areas, pedestrian paths, and vehicular circulation, where feasible. Reducing the width of streets and using Hollywood driveways are other options.
- S-17-Action 2 **-** Where feasible, employ on-site natural systems such as vegetated bioswales, dry wells, and rain gardens in the treatment of stormwater, where possible, to encourage infiltration, detention, retention, groundwater recharge, and/or water reuse on-site.

The City of Elk Grove has developed what it refers to as the Green Street Pilot Project for implementing low impact development (LID) and groundwater recharge technologies to achieve multiple benefits. The figures showing how these techniques could be applied to a segment of Elk Grove Florin Road are attached. City planners should explore with the Project proponents how the current site design could be modified to incorporate these techniques and thereby advance the sustainable community concept and meet the requirements of the NPDES permit.

Sustainable Water Use and Efficiency

One of the principal challenges facing the proposed Project and all future projects in the City is how to ensure that existing and future water supplies are adequate to support to demands created by such projects. As recognized in the Sustainability Element water is a strained resource and it is likely to become more so over the next 50-year to 100-year planning horizon. Accordingly, City planners must take care to ensure that the design and landscaping of the proposed Project incorporates the best possible management practices for achieving water conservation and efficiency. As set forth in the Sustainability Element, the management actions consistent with this approach include:

- S-15-Action 1 - Require the planting of native and/or drought-tolerant landscaping at the site of new/existing City facilities, landscaped medians, and parkway strips to reduce water use and maintenance costs.
- S-15-Action 4 - Promote the use of drought-tolerant and/or native vegetation to minimize water consumption by providing information to developers and designers and partnering with local nurseries.
- S-15-Action 5 - Encourage use of drought-tolerant and/or native planting and grading/improvement design within private development projects to maximize runoff into designated planter areas.

As part of its effort to advance the use of green stormwater infrastructure, the City has been recognized regionally for its leadership in developing a pilot project – the Rain Garden Plaza – that demonstrates how river friendly landscaping can be incorporated into the design of various public and private spaces. The project features a quarter-acre rain garden with a dry well, disconnected downspouts (water travels to a garden, not the stormdrain) and other features to enhance groundwater recharge. The site uses California native drought-resistant plants to encourage sustainable landscaping, attract butterflies, birds and bees and promote water conservation. This design mimics the natural processes that occur in undeveloped watersheds and serves as a model of how residential and commercial development projects can be designed to conserve water. City planners should point to this pilot project in seeking to ensure that the Project is sustainably designed to conserve the area's strained water supplies.

Natural Resource Preservation and Enhancement

The proposed Project is immediately adjacent to a lower reach of Laguna Creek. This area is part of a continuous open space corridor along the creek that provides significant natural resource values that provide abundant habitat for wildlife and protect the quality of the environment for human enjoyment. The Sustainability Element recognizes that this stream corridor along with others in the City serves as a "carbon sink" to improve air quality and reduce net carbon emissions. Furthermore, it is recognized that this environmental service can be enhanced by expanding the City's community forest. Trees planted along stream corridors in the City's urban core can help filter pollutants from the air, provide shade, reduce energy use for cooling, mitigate the heat island effect of the built environment, and provide places for relaxation and refuge from busy city life. City planners should work with the Project proponents to include a resource preservation and enhancement element in the Project that strengthens these environmental services. This could include the following actions consistent with those identified in the Sustainability Element:

- Identify and develop a baseline inventory of existing opportunities for carbon sequestration resources in the Project area, including woodlands, grasslands, wetlands, stream corridors, trees, and plants.
- Create a resource management plan for the stream corridor adjacent to the Project site that is aimed at preserving and enhancing existing wildlife habitats, expanding the City's community forest, and promoting human recreational activities associated with the stream corridor.

Recreational opportunities

The value of this open space along the creeks in Elk Grove provide an invaluable community amenity. Trails along the creek in adjacent areas are heavily used by hikers, bikers, and dog walkers. It is difficult to determine the actual setback from the edge of the creek to the beginning of the lot line. A trail is included in the planning. But the space in the stream corridor appears to be quite narrow. This limits the recreational and aesthetic value of the trail in addition to the other issues raised in this letter. A model for a riparian corridor can be found in many other reaches of Laguna Creek; in the reach adjacent to the Fallbrook development (between Elk Grove Florin and Waterman Roads), or along the reach west of Bruceville Road. We suggest the City work with the Project proponents to modify the design to maintain that same standards for this creek corridor.

Other suggestions for consideration

It was difficult to discern from the plans if non-potable water lines (purple pipes) are being plumbed into this project. The use of recycled water for irrigation and similar purposes is one piece of a water conservation strategy. We would anticipate that they would be integrated into this project.

Conclusion

We look forward to receiving the revised plans in the future. We wanted to particularly point out that some of the features of the plan would serve to enhance the enjoyment of the creek. The fact that a road ran parallel to certain reaches of the creek, not the back fences of houses, permits all in the community to enjoy the open space, birds, and small mammals that live in the creek and adjacent area. For those areas where houses do back up to the creek, we assume that the same standard for open, not solid wood, fencing used elsewhere in Elk Grove will be incorporated into this development.

Please feel free to contact me directly at 916-316-7982 should you wish to discuss any aspect of this letter.

Very truly yours,

Barbara Washburn
For the Board of Directors
Laguna Creek Watershed Council