



Winters City Council Meeting  
City Council Chambers  
318 First Street  
Tuesday, January 21, 2014  
6:30 p.m.  
**AGENDA**

*Members of the City Council*

*Cecilia Aguiar-Curry, Mayor  
Woody Fridae, Mayor Pro-Tempore  
Harold Anderson  
Wade Cowan  
Bruce Guelden*

*John W. Donlevy, Jr., City Manager  
John Wallace, City Attorney  
Nanci Mills, City Clerk*

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PLEASE NOTE – The numerical order of items on this agenda is for convenience of reference. Items may be taken out of order upon request of the Mayor or Councilmembers. Public comments time may be limited and speakers will be asked to state their name.

Roll Call

Pledge of Allegiance

Approval of Agenda

COUNCIL/STAFF COMMENTS

PUBLIC COMMENTS

At this time, any member of the public may address the City Council on matters, which are not listed on this agenda. Citizens should reserve their comments for matter listed on this agenda at the time the item is considered by the Council. An exception is made for members of the public for whom it would create a hardship to stay until their item is heard. Those individuals may address the item after the public has spoken on issues that are not listed on the agenda. Presentations may be limited to accommodate all speakers within the time available. Public comments may also be continued to later in the meeting should the time allotted for public comment expire.

### CONSENT CALENDAR

All matters listed under the consent calendar are considered routine and non-controversial, require no discussion and are expected to have unanimous Council support and may be enacted by the City Council in one motion in the form listed below. There will be no separate discussion of these items. However, before the City Council votes on the motion to adopt, members of the City Council, staff, or the public may request that specific items be removed from the Consent Calendar for separate discussion and action. Items(s) removed will be discussed later in the meeting as time permits.

- A. Minutes of the Regular Meeting of the Winters City Council Held on Tuesday, January 7, 2014 (pp 4-7)
- B. Resolution 2014-01, A Resolution of the City Council of the City of Winters Approving a 2013/2014 Budget Amendment for Payment of Optional Litigation Surcharge for League of California Cities Membership (pp 8-9)
- C. Approval of Letter Requesting CalPERS Consider Reassigning Yolo County to the Sacramento Region for Health Premium Rate in 2015 (pp 10-14)

### PRESENTATIONS

Winters Police Department Officer of the Year

Petrea Marchand, Executive Director of the Yolo Heritage Conservation Plan JPA (pp 15-22)

Edgar Chavez – Proposed Youth Council

### DISCUSSION ITEMS

1. Second Reading and Adoption of Ordinance 2014-01, Adopting the Proposed Drainage Impact Fee and Adding Chapter 15.90 to Title 15 of the Winters Municipal Code to Establish a Drainage Impact Fee (pp 23-95)
2. Resolution 2014-02, A Resolution of the City Council of the City of Winters setting the amount of Drainage Impact Fees (pp 96-130)

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### CITY OF WINTERS AS SUCCESSOR AGENCY TO THE WINTERS COMMUNITY DEVELOPMENT AGENCY

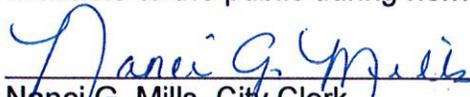
1. None

## CITY MANAGER REPORT

### INFORMATION ONLY

#### ADJOURNMENT

I declare under penalty of perjury that the foregoing agenda for the January 21, 2014 regular meeting of the Winters City Council was personally delivered to each Councilmember's mail boxes in City Hall and posted on the outside public bulletin board at City Hall, 318 First Street on January 15, 2014, and made available to the public during normal business hours.

  
\_\_\_\_\_  
Nanci G. Mills, City Clerk

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*Winters Library – 708 Railroad Avenue*

*City Hall – Finance Office - 318 First Street*

*During Council meetings – Right side as you enter the Council Chambers*

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Wednesday at 10:00 a.m.

Videotapes of City Council meetings are available for review at the Winters Branch of the Yolo County Library.



Minutes of the Winters City Council Meeting  
Held on January 7, 2014

Mayor Cecilia Aguiar-Curry called the meeting to order at 6:30 p.m.

Present: Council Members Harold Anderson, Wade Cowan, Woody Fridae, Bruce Guelden and Mayor Cecilia Aguiar-Curry  
Absent: None  
Staff: City Manager John Donlevy, City Clerk Nanci Mills, Assistant City Attorney Ethan Walsh, Director of Financial Management Shelly Gunby, Police Chief Sergio Gutierrez, Public Works Superintendent Eric Lucero, Police Sergeant Jose Ramirez, Police Officers Steven Moore and Jose Hermosillo and Management Analysts Mary Jo Rodolfa and Tracy Jensen.

Patrick Riley led the Pledge of Allegiance.

Approval of Agenda: Motion by Council Member Fridae to approve the agenda with no changes. Second by Council Member Cowan. Motion carried unanimously.

COUNCIL/STAFF COMMENTS

PUBLIC COMMENTS: Patrick Riley, 819 Carrion Circle, voiced his concern about the sewer rate being based on the winter water schedule. Due to low rainfall and the need for winter landscape irrigation, there is more usage than normal and he doesn't want future sewer rates to be based on this usage. City Manager Donlevy said the City would use the lowest three months, or the lowest month to establish the lowest sewer rate for residential use.

CONSENT CALENDAR

- A. Minutes of the Regular Meeting of the Winters City Council Held on Tuesday, December 17, 2013
- B. On-Call Materials Sampling and Testing, and Geotechnical Engineering Services Contract Amendments with Construction Testing Services (CTS) and KC Engineering

Council Member Cowan recused himself due to a possible conflict of interest pertaining to Item B.

City Manager Donlevy gave an overview. Council Member Anderson requested a correction to the 12/17/13 minutes to confirm Assistant City Attorney Ethan Walsh's attendance at that meeting. Motion by Council Member Fridae to approve the Consent Calendar with the specified change. Second by Council Member Guelden. Motion carried 4-1, with one absent.

Council Member Cowan returned to the dais.

## PRESENTATIONS

Police Chief Gutierrez introduced the newest Winters Police Officer, Jose Hermosillo, a 2007 academy graduate and previously a reserve with the Williams Police Department, who started with the City of Winters on 1/6/14. Officer Hermosillo was sworn in by City Clerk Nanci Mills and Sergeant Ed Anderson of the Williams Police Department pinned on his badge. Police Chief Gutierrez welcomed Officer Hermosillo and Mayor Aguiar-Curry briefly adjourned the meeting for a cake reception.

## DISCUSSION ITEMS

1. Public Hearing and Introduction of Ordinance 2014-01, Adopting the Proposed Drainage Impact Fee and Adding Chapter 15.90 to Title 15 of the Winters Municipal Code to Establish a Drainage Impact Fee

Director of Financial Management Shelly Gunby gave an overview. This ordinance would not adopt a drainage impact fee, but would enable staff to set up a fee schedule and have it approved by resolution for future projects. A fee schedule was adopted by an emergency ordinance in 2010, but has expired.

Mayor Aguiar-Curry opened the public hearing at 7:10 p.m. and closed the public hearing at 7:10 p.m. with no public comment. Council Member Fridae requested that we move ahead cautiously.

Motion by Council Member Anderson to introduce Ordinance 2014-01, adding Chapter 15.90 to Title 15 of the Winters Municipal Code to establish a flood overlay zone fee which would allow the City of Winters to establish a finalized city-wide flood area fee schedule by resolution. Second by Council Member Guelden. Motion carried with the following vote:

AYES: Council Members Anderson, Cowan, Fridae, Guelden, Mayor  
Aguiar-Curry  
NOES: None  
ABSENT: None  
ABSTAIN: None

2. Rehabilitation Work at Winters City Park and the Prevailing Wage Requirements Related to Volunteer Labor

Assistant City Attorney Ethan Walsh gave an overview and summarized by saying the City can use volunteer labor to assist with the City Park rehabilitation project, including volunteer services from contractors. If the employees of contractors choose to volunteer, the City should make an effort to ensure that pressure or coercion from the employer has not occurred. Council Member Guelden thanked Ethan for a very clear, understandable report that gives the City a better understanding of how to approach these situations. Mayor Aguiar-Curry said it would be wise for the City to have a form for all volunteers to complete to cover workers' compensation and liability issues that may arise. Assistant City Attorney Walsh will prepare the requested form.

3. Update and/or Tax Increase by Ballot Measure for Transient Occupancy Tax or TOT

Assistant City Attorney Ethan Walsh gave an overview. Since the TOT goes into the City's General Fund, a 45-day notice must be published and the increase must be approved by 2/3 of the Council. It would then go to the voters and must be approved by a majority of the voters who voted on the measure. If Council wants to proceed with the process to increase the TOT from 10% to 12%, staff must move forward with noticing. Council agreed to move forward and advised staff to begin the noticing process.

4. Downtown Business Security

City Manager Donlevy gave an overview and described a recent theft that occurred in Woodland, where four suspects were apprehended within 24 hours through the help of video cameras and Facebook. Council Member Fridae suggested an incentive program for downtown businesses to install video cameras, similar to the façade improvement program. Council discussed various types and styles of camera systems and agreed the use of camera would be a good deterrent and could be used as an investigative tool, providing evidence for a crime. City Manager Donlevy said the creation of an incentive program could be included in the budget. Mayor Aguiar-Curry asked staff to bring back a

proposal to Council to include a couple of different options, using caution with incentives and legality.

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CITY OF WINTERS AS SUCCESSOR AGENCY TO THE WINTERS  
COMMUNITY DEVELOPMENT AGENCY

1. None

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CITY MANAGER REPORT: City Manager Donlevy wished everyone a happy New Year and said during the two-week holiday period, the Fire Department had nine fire calls, with 7 calls coming on one day. The contractor for the temporary bridge has been blessed with good weather, but the City Manager can't determine when the temporary bridge will open. Staff will hit the accelerator next week on the PG&E and Downtown hotel projects.

ADJOURNMENT: Mayor Aguiar-Curry adjourned the meeting at 8:14 p.m. in memory of Carmen Madonia.

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Cecilia Aguiar-Curry, MAYOR

ATTEST:

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Nanci G. Mills, City Clerk



**TO:** Honorable Mayor and Council Members  
**DATE:** January 21, 2014  
**THROUGH:** John W. Donlevy, Jr., City Manager  
**FROM:** Shelly A. Gunby, Director of Financial Management *Shelley*  
**SUBJECT:** Resolution 2014-01 amending the adopted 2013-2014 Budget

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**RECOMMENDATION:**

1. Approve Resolution 2014-01 amending the adopted 2013-2014 Budget, in the amount of \$395.30

**BACKGROUND:**

The City of Winters is a member of the League of California Cities. This organization has been instrumental in helping cities protect funding from state raids. The League has also been a driving force in litigation against the state on the behalf of Cities statewide. The membership dues for the League of California Cities is budgeted each year, however, this year, the League has requested additional funding for "Litigation". The League is currently involved in a lawsuit against the Department of Finance of the State of California regarding provisions of AB1484, a part of the redevelopment dissolution, that would redirect the sales tax of cities that have refused or are unable to provide the funding the State has deemed due it from the dissolution of redevelopment agencies.

While the City of Winters has successfully navigated the dissolution process in such a manner as to not have to send money to the State of California, the potential for the State to make another run at the protected revenues of Cities is something that the City of Winters has a vested interest in preventing.

The funding requested would be a small investment to help ensure that the State of California is unable to redirect local funds to State programs.

**FISCAL IMPACT**

Expenditure of \$395.30 from Fund 101, General Fund.

**ATTACHEMENTS:**

Resolution 2014-01

**CITY COUNCIL  
RESOLUTION 2013-01**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF  
WINTERS AMENDING THE CITY OF WINTERS 2013-2014  
ADOPTED OPERATING BUDGET**

**WHEREAS**, every local agency is required to adopt a budget for the subsequent fiscal year for estimated revenues and expenditures; and

**WHEREAS**, certain changes in City Services have taken place since the adoption of the City of Winters 2012-2014 budget; and

**WHEREAS**, the City Council and Staff members have thoroughly reviewed and analyzed the proposed budget in order to determine the needs of the City of Winters; and

**WHEREAS**, it has been determined that the City is in need of a new Plotter,

**NOW, THEREFORE BE IT RESOLVED** by the City Council of the City of Winters that the adopted operating budget for fiscal year 2013-2014 be amended as follows:

Section 1. Membership Dues

- a. Increased by \$395.30 in account 101-55312-110 for the addition of Optional Litigation Surcharge to the League of California Cities for calendar year 2014.

**PASSED AND ADOPTED** by the City of Winters this 21st day of January 2013 by the following vote:

**AYES;  
NOES;  
ABSTAIN;  
ABSENT;**

\_\_\_\_\_  
Cecilia Aguiar-Curry, Mayor

**ATTEST:**

\_\_\_\_\_  
Nanci G. Mills, City Clerk



**TO:** Honorable Mayor and Council Members

**DATE:** January 21, 2014

**THROUGH:** John W. Donlevy, Jr., City Manager

**FROM:** Nanci G. Mills, Director of Administrative Services/City Clerk *Nanci*

**SUBJECT:** Approve Letter Requesting that CalPERS Consider Reassigning Yolo County to the Sacramento Region for Health Premium Rates in 2015

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**RECOMMENDATION:**

Authorize the Mayor to sign a letter on behalf of the Winters City Council requesting that CalPERS consider reassigning Yolo County to the Sacramento Region for health premium rates in 2015.

**BACKGROUND:**

The cities of Davis, West Sacramento, Winters, and Woodland, the County of Yolo and the Yolo-Solano Air Quality Management District have joined to request that CalPERS consider reassigning Yolo County to the Sacramento Region for health premium rates.

When CalPERS split areas into regions in 2010 and designated Yolo County as a part of the Bay Area Region, it directly affected the employees who live in Yolo County. A chart is provided below based on the CalPERS 2014 Health Plan Rates, which shows premiums for employee only, and the cost difference if the employee lives and works in Yolo County compared to living in Sacramento and working in Yolo County. The cost disparity between employees paying Bay Area versus Sacramento rates increases beyond the amount in the table when an employee has coverage for additional family members.

Health Plan	Bay Area Region (BAR) per Month	Sacramento Region (SR) per Month	Cost and Percentage Per Month BAR over
Anthem Select*	\$657	\$750	-\$93/-14%
Anthem Traditional*	\$728	\$840	-\$112/-15%
Blue Shield Access+	\$837	\$735	\$102/14%
Blue Shield Net Value	\$704	\$618	\$86/14%
Kaiser	\$743	\$681	\$61/9%
United Healthcare	\$764	\$643	\$121/19%
PERS Care (PPO)	\$720	\$694	\$26/4%
PERS Choice (PPO)	\$690	\$666	\$25/4%
PERS Select (PPO)	\$764	\$638	\$24/4%

In 2014 CalPERS offered new HMOs and rate plans that give employees more choice, specifically Anthem Select\* and Traditional\* plans. However, for Yolo County employees, who live and work in Yolo County and have doctors within the UC Davis Medical Group, do not have the option to switch, as the provider does not accept Anthem Blue Cross plans. There is a disparity in the rates for employees who live and work in Yolo County. These employees are being penalized for having a zip code west of the Sacramento River, despite the widely held understanding that Yolo County is a member of the greater Sacramento region. Notably, the state's Covered California program has determined Yolo County to be a member of the Sacramento Region. CalPERS could make this determination consistent across statewide health policies by moving Yolo County residents under the Sacramento region umbrella.

**FISCAL IMPACT:**

There is no fiscal impact to the City.

**Other Agency Involvement**

The cities of Davis, West Sacramento, Winters and Woodland, and the County of Yolo.

Attachment: Proposed Letter  
Covered California Plans by Region



LOGOS OF ALL AGENCIES

Date

Priya Mathur, Chair  
 CalPERS  
 Board of Administration  
 Pension and Health Benefits Committee  
 P.O. Box 942701  
 Sacramento, CA 94229-2701

RE: CalPERS Region Health Premium Rates for Yolo County

Dear Chair Mathur:

The cities of Davis, West Sacramento, Winters and Woodland, the county of Yolo and the Yolo-Solano Air Quality Management District respectfully request that CalPERS consider reassigning Yolo County to the Sacramento Region for health premium rates in 2015.

When CalPERS split areas into regions in 2010 and designated Yolo County as a part of the Bay Area Region, it directly affected our employees who live in Yolo County. We have provided a chart based on the CalPERS 2014 Health Plan Rates which shows premiums for employee only and the cost difference if the employee lives and works in Yolo County compared to living in Sacramento and working in Yolo County. The cost disparity between employees paying Bay Area versus Sacramento rates increases beyond the amount in the table when an employee has coverage for additional family members.

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PERS Choice (PPO)	\$690	\$666	\$25/4%
PERS Select (PPO)	\$764	\$638	\$24/4%

We realize that in 2014 CalPERS offered new HMOs and rate plans that give employees more choice, specifically Anthem Select\* and Traditional\* plans. However, for our employees, who live and work in Yolo County and have doctors within the UC Davis Medical Group, do not have the option to switch as the provider does not accept Anthem Blue Cross plans. There is a disparity in the rates for employees who live and work in Yolo County. These employees are being penalized for having a zip code west of the Sacramento River, despite the widely held understanding that Yolo County is a member of the greater Sacramento region. Notably, the state's Covered California program has determined Yolo County

to be a member of the Sacramento Region<sup>1</sup>. CalPERS could make this determination consistent across statewide health policies by moving Yolo County residents under the Sacramento region umbrella.

Thank you for considering this request. We would be happy to provide any additional documentation requested.

\_\_\_\_\_  
Name, Title  
City of Davis

\_\_\_\_\_  
Name, Title  
City of West Sacramento

\_\_\_\_\_  
Name, Title  
City of Winters

\_\_\_\_\_  
Name, Title  
City of Woodland

\_\_\_\_\_  
Name, Title  
County of Yolo

\_\_\_\_\_, Chair of the Board  
Yolo-Solano Air Quality Management District

Copy: Board of Administration Pension & Health Benefits Committee Members

<sup>1</sup> California Coverage Map provided by Covered California at [www.coveredca.com](http://www.coveredca.com)

## Coverage Map



Source [www.scotthoweonline.com](http://www.scotthoweonline.com)



State of California – The Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Bay Delta Region  
7329 Silverado Trail, Napa, CA 94558  
North Central Region  
1701 Nimbus Road, Suite A, Rancho Cordova, CA 95670  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

*EDMUND G. BROWN JR., Governor*  
*CHARLTON H. BONHAM, Director*



December 10, 2013

Mr. Don Saylor, Chair  
Yolo HCP/NCCP Joint Powers Agency  
625 Court Street, Room 201  
Woodland, CA 95695  
[Don.Saylor@yolocounty.org](mailto:Don.Saylor@yolocounty.org)

Dear Mr. Saylor:

Subject: Summary of Recent Wildlife Agency/JPA Issue Resolution Meetings and Yolo Natural Heritage Program Progress

### **Background**

The California Department of Fish and Wildlife (CDFW) is providing this letter to the Yolo County Habitat Conservation Plan (HCP)/Natural Communities Conservation Plan (NCCP) Joint Powers Agency (JPA) as a summary of a series of policy meetings held from September to November 2013 and to offer guidance to the JPA regarding development of the Yolo Natural Heritage Program (NHP) based on those meetings. We have shared this information with the United States Fish and Wildlife Service (FWS) and they are in agreement with the content of this letter. CDFW and the FWS appreciate the collaborative participation of the JPA management team, and JPA staff in reviewing major conservation plan items over the last few months following release of the First Administrative draft NHP. From CDFW's perspective, the discussions were productive, informative, and collaborative. We believe these meetings were very valuable in increasing the understanding of Yolo issues and helped frame conservation plan decision points. CDFW and FWS are available for additional consultation and will continue to work with Yolo JPA staff on conservation issues.

The primary issues discussed at the meetings included covered species, impacts, the conservation reserve area, funding, implementation costs, conservation targets, conservation mechanisms, available local funding sources, and existing conservation lands that could contribute to a final conservation approach. We understand these topics and issues were also shared with Advisory Committee members and JPA Board members. CDFW and FWS offered guidance with the understanding that the conservation framework resulting from these discussions is intended to inform a JPA decision regarding the best conservation planning processes for Yolo to pursue and the conservation framework would be subject to refinement during the second administrative draft.

We have worked to balance the level of detail needed by the JPA to make an informed decision with the recognition that all conservation plan details cannot be finalized in a series of meetings over a couple of months.

*Conserving California's Wildlife Since 1870*

### **Conservation Framework Issue 1: Covered Species**

The selection of species to cover in a plan is based on numerous factors. JPA staff indicated a willingness to consider reducing the covered species list if the action would reduce costs while still achieving broad conservation in the NHP Plan Area. This resulted in removing species from the draft Covered Species list that: 1) could be conserved through processes separate from the NHP, 2) are not currently or expected to become threatened or endangered species, 3) may rarely be impacted, and 4) are likely to require substantial additional land conservation beyond what is needed to address other covered species. It is not unusual for conservation plans to refine the covered species list over time to best balance impacts, conservation and costs. We are in agreement in the approach that the JPA staff has taken on removing certain covered species from the plan and expect that the final list of NHP covered species may be further refined.

### **Conservation Framework Issue 2: Conservation Reserve Area**

CDFW and FWS recommended in previous comments that the JPA should more clearly define the Conservation Reserve Area geographically as a way to clarify the overall conservation strategy and inform the development of other plan aspects such as land management and costs. JPA and wildlife agency staff worked together to evaluate available biological information and identify a broad Conservation Reserve Area primarily in the eastern part of Yolo County, but that also includes riparian areas adjacent to small creeks in other parts of the County. JPA staff also consulted with the Advisory Committee and brought suggested changes to the Conservation Reserve Area back to the wildlife agencies for consideration. This proposed Conservation Reserve Area provides substantial habitat and therefore is important for the conservation of Swainson's hawk, giant garter snake, California tiger salamander, burrowing owl, least Bell's vireo and other species. While creation of reserves in this area is sufficient to provide for the conservation of covered species on the refined list, certain natural communities in Yolo County only occur in the western portion of the County outside of the proposed Conservation Reserve Area. Additional review of these natural communities will be needed in the next NHP draft document, but CDFW expects conservation of these natural communities can be addressed in the NHP within the overall conservation target discussed below.

### **Conservation Framework Issue 3: Impacts, Mitigation and Existing Conservation Lands**

Proposed NHP impacts are approximately 17,860 acres based on information within the first administrative draft NHP. Of the impact acres, up to 2,000 acres may potentially impact California tiger salamander and its habitat and up to 1,600 acres may impact giant garter snake and its habitat. Most NHP impacts would affect Swainson's hawk habitat with remaining impacts affecting other covered species and habitats, including certain riparian and wetland areas. It is estimated that mitigation for these impacts would range from 22,000 to 25,000 acres and these estimates are consistent with what CDFW and FWS generally require for mitigation in other permits. These impact assumptions contribute to the discussion of conservation targets below.

Existing conservation lands in the Plan Area were reviewed for location, biological suitability, appropriate land conservation, and expected management. Existing conserved lands can be included in a final NCCP if they 1) contribute to the defined conservation strategy by providing habitat for covered species, natural communities, or ecological processes; and 2) are permanently conserved and managed consistent with other plan conservation areas as part of a reserve network. A preliminary review conducted by JPA staff, JPA GIS support, and CDFW and FWS indicate that up to 35,000 acres of existing lands may contribute to the conservation strategy. Based on other NCCPs, we anticipate the actual range of eligible acres to be between 14,000 and 30,000.

#### **Conservation Framework Issue 4: Conservation Targets and Mechanisms**

JPA and wildlife agency staff spent considerable time discussing how to identify conservation target acres and locations for Covered Species and natural communities. CDFW and FWS recognize the number of conservation acres in any plan greatly influences overall plan costs and agreed with JPA staff that providing the clearest guidance possible on this issue was very important. Conservation acreage targets may be met with new mitigation lands, certain existing mitigation and conservation lands, and new conservation lands acquired with local, state, federal and private funds. Conservation lands would need to be appropriately managed as part of a reserve system. CDFW and FWS have identified permanent conservation easements or fee title acquisitions as the primary form of conservation in reserve areas.

Conservation targets are typically identified in a conservation planning process through an iterative review of:

- 1) Biological data – including the best available science on the life history of each Covered Species and its population level and distribution in the plan area, as well as the abundance and distribution of natural communities. Recovery plans and other source planning documents are used to inform the conservation strategy.
- 2) Plan specific factors -- including the impacts of Covered Activities in the Plan, the patterns of development in the Plan Area, and the authority over specific land uses.

An iterative review of these issues often occurs over an extended time period during the development of a large area conservation plan and includes input from scientists, local agencies, the wildlife agencies, advisory representatives and other stakeholders. We recognize the efforts that have been made by the Advisory Committee and other interested parties in developing the first administrative draft of the NHP. In the recent series of meetings, we worked with JPA staff to discuss these issues, review scientific and planning documents, and develop certain conservation targets as part of the conservation framework. We informed JPA staff that conservation target acres must necessarily be drafted at this time, and are based on the best available information and subject to refinement as part of the next draft NHP document.

Swainson's hawk and the giant garter snake were the primary species for discussion of conservation targets due to their distribution in the NHP area. Devising a species-specific regional conservation strategy for the Swainson's hawk has proven to be challenging for all Central Valley NCCPs in progress. This territorial migratory species is widely distributed across multiple conservation plans, is dependent on a dispersed prey base, and has high energetic demands during the breeding season. Breeding site fidelity and use of certain agricultural lands for foraging require that a conservation strategy for the Swainson's hawk consider not only total amount of foraging habitat, but plan-specific spatial habitat parameters as well. The NHP supports a core population of this species. CDFW discussed the draft conservation target for Swainson's hawk proposed as part of the Bay Delta Conservation Plan (BDCP) which would conserve approximately 43,000 acres of certain agricultural lands, including high-quality foraging habitat for Swainson's hawk. The Yolo NHP proposes fewer impacts, has more limited development areas, and a smaller plan area than BDCP. Yolo County also has existing Swainson's hawk mitigation and conservation lands that can be incorporated into the NHP Conservation Reserve Area. These and other factors specific to the NHP contribute to the analysis of a conservation target for Swainson's hawk in the NHP area. Mitigation alone is unlikely to be sufficient to conserve Swainson's hawk in Yolo County. Based on the above considerations and subject to future refinement, CDFW has worked with FWS to identify a conservation target of 25,000 to 40,000 acres of habitat appropriate for Swainson's hawk. The final conservation target for this species will depend on a number of factors including final reserve design and location, reduction of other existing threats and quality and assurances of conserved foraging and nesting habitat. The final conservation strategy will include an adaptive component that monitors the long-term retention of high quality Swainson's hawk habitat outside of conserved lands, but within the NHP area. The NCCP could identify a conservation target toward the lower end of the range if most high quality foraging lands outside the reserve areas are retained on the landscape and the conservation acres could be increased if monitoring showed declines in high quality foraging habitat throughout the NHP area. The conservation acres identified in the Plan would need to be achieved during implementation or the HCP/NCCP permits could be revoked or suspended.

Development of a conservation target for giant garter snake is equally challenging. The NHP proposes a maximum of 1,600 acres of impacts to giant garter snake and its habitat. Within the NHP area, a great deal of information is known related to giant garter snake distribution, habitat areas and potential connectivity. The giant garter snake target acres are based on the Giant Garter Snake Recovery Plan (Recovery Plan) under preparation by FWS, comments received on the draft Recovery Plan, as well as on-going research and recent scientific studies. Additionally, there may be significant acres of certain existing conservation lands that support giant garter snake or its habitat and connectivity between habitats in the NHP area that could contribute to the giant garter snake conservation target. CDFW and FWS have identified a conservation target for this HCP/NCCP from 13,000 to 15,000 acres of habitat appropriate for giant garter snake.

Some additional conservation lands would be needed to address other covered species and natural communities that do not co-occur with Swainson's hawk and giant garter snake conservation reserve areas. A total conservation target in the Plan Area is likely to include between 35,000 to 65,000 acres of land depending on proposed refinement of plan impact acres, review of existing conservation lands, refinement of conservation reserve areas, natural communities and conservation targets, and more detailed review of scientific information and refinement of biological goals and objectives. The high end of this conservation target is an 11,000-acre reduction from the first administrative draft of the NHP. The low end is a significant reduction from the first administrative draft. The JPA indicated that more review of proposed plan impacts and existing conservation lands is currently underway and this information may influence the conservation targets.

As described above, the conservation target would be met by a combination of new mitigation lands (estimated between 22,000-25,000 acres), certain existing conservation lands (estimated between 14,000-30,000 acres) and new conservation lands primarily from local, state and federal funds. From the information available to CDFW and FWS, we would expect the total conservation target could be achieved with 10,000 to 20,000 acres of new conservation lands. Our expectation is local funds would account for approximately half of these new conservation lands.

CDFW expects the JPA will refine the conservation targets with input from CDFW and FWS during development of the second administrative draft and based on scientific principles, NHP impacts, and final conservation strategy and reserve design.

Although conservation easement and fee title acquisition have been identified as the primary mechanisms for conservation, agricultural lands that remain in private ownership and management still play a role in conservation and can be used to support NCCP findings. The continuation of certain agricultural activities may benefit covered species, habitat connectivity and ecosystem services. Additional conservation actions, such as agricultural conservation strategies, could be developed and implemented separately from the NCCP. The effectiveness of such strategies to offset any substantial agricultural practice changes and help retain high quality Swainson's hawk and giant garter snake habitat in the NHP area could be monitored. The results of these separate efforts could be evaluated as part of the NCCP and the overall NCCP conservation reserve acres.

#### **Conservation Framework Issue 5: Costs and Funding**

JPA staff indicated an economic consultant has been retained to further develop and analyze plan costs, funding, and associated economic issues. We agree this is an important task that will further inform the JPA and plan development. CDFW and FWS suggested reviewing cost and funding information developed as part of the Santa Clara Valley Habitat Plan as one example of a recent plan with a detailed assessment. Primary plan costs, including land acquisition, management and monitoring, habitat enhancement and restoration, and personnel costs, including scientific and administrative costs were discussed related to the NHP.

Funding for the plan may come from a variety of sources including impact fees, local funding, state and federal funding, and other sources. CDFW and FWS reviewed a variety of local funding options with JPA staff. It appears existing local funding options are expected to provide significantly less money than in other completed northern California NCCPs. CDFW and FWS recommended JPA staff thoroughly review all existing local funding sources to ensure they can be utilized to meet plan objectives and are available to the JPA for use.

CDFW and FWS also recommended JPA staff examine ways to develop additional funding sources, if the JPA believes overall plan costs may be the primary limiting factor to completing an NCCP. A number of potential new funding sources were discussed, which warrant more time to investigate than the timeframe over which these policy discussions have taken place. For other NCCPs approved in northern California, after accounting for funding received through impacts fees and other private sources, local funding has provided at least half of the remaining funding needed for the NCCP. Both CDFW and FWS have indicated the JPA should utilize a similar approach for the NHP to function as an HCP/NCCP. The state may be able to contribute slightly more than the 50% federal/state allocation if funds are available specific to Yolo County. The JPA is, for example, developing one of two NCCPs currently eligible for Delta NCCP funding from the state Wildlife Conservation Board (WCB). WCB currently has \$10.6 million available for expenditure from this funding source over the next four and a half years. Not only would the Yolo NHP be one of only two NCCPs to qualify for these funds, CDFW can consider the statewide significance of the Swainson's hawk and the central role Yolo County must play in its conservation as a justification for supporting grants to this locally-based plan.

Other NCCP planning efforts, such as the recently completed Santa Clara Valley Habitat Plan, developed a robust cost and funding analysis and were able to conclude that sufficient local funding for the NCCP was available from local sources other than local agency general funds. Based on the analysis provided by Santa Clara, the wildlife agencies agreed with the funding approach that did not rely on local general funds. While NCCPs do not require the use of local general funds, continued permit implementation and compliance may not be attainable if there is insufficient funding for certain required plan elements.

### **NCCP Benefits**

CDFW and FWS provided the above conservation framework discussion to help inform a JPA decision about whether to continue development of the Yolo NHP as an NCCP/HCP. Alternative habitat conservation planning options include pursuit of either a federal HCP in concert with a California Endangered Species Act (CESA) Incidental Take Permit (ITP) (also known as a 2081 permit), a local conservation strategy, or other local options. CDFW and FWS will continue to work with the JPA and staff on approaches that lead to beneficial conservation outcomes for species and natural communities, including any of the different permitting mechanisms.

Mr. Don Saylor  
December 10, 2013  
Page 7

CDFW and FWS believe, however, the NCCP/HCP option provides substantial additional benefits both to species/natural community conservation and to long-term Yolo County development and regulatory certainty, when compared to either a CESA ITP or local conservation strategy process alone. Completion of an NCCP/HCP by the JPA would allow CDFW to permit take for covered non-listed species as well as covered listed species. NCCP coverage is also the only mechanism the Yolo JPA would have available to obtain take authorization for fully-protected species. Additionally, in an NCCP, CDFW is able to provide significant long-term assurances that NCCP conservation measures, including the acres necessary for mitigation and conservation, are sufficient for the circumstances described in the NCCP. Lastly, the preparation and completion of an NCCP is expected to draw significant additional state and federal funds to planning and conservation in Yolo County than would be expected without such a plan in progress or in place.

If the JPA concludes that completion of an NCCP based on the framework described in this letter (including future refinements) is desirable and completion is expected to be feasible, CDFW will continue to work with the JPA to obtain additional funding for continued NCCP preparation.

In conclusion, CDFW and the FWS continue to encourage the JPA to develop, complete and implement an NCCP/HCP in Yolo County. If we can provide additional guidance to inform the JPA, please do not hesitate to contact us.

Sincerely,



Scott Wilson  
Acting Regional Manager  
Bay Delta Region



for Tina Bartlett  
Regional Manager  
North Central Region

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Comparison of High/Low Yolo HCP/NCCP Scenario Assumptions				
Assumptions	Revised High (1/13/13)	Revised Low (1/13/14)	Language from 12/10/13 CDFW/USFWS Letter	Page No.
Conservation target (acres)	41,500 to 44,500	37,000 to 40,000	Conservation targets are typically identified in a conservation planning process through an iterative review of: 1) biological data (text abbreviated) and 2) plan-specific factors (text abbreviated). Total conservation target likely to include between 35,000 and 65,000 acres of land depending on proposed refinement of plan impact acres, review of existing protected lands, refinement of conservation reserve areas, natural communities and conservation targets, and a more detailed review of scientific information and refinement of biological goals and objectives.	3 & 5
Mitigation (acres)	22,000	17,500	It is estimated that mitigation for these impacts would range from 22,000 to 25,000 acres and these estimates are consistent with what CDFW and FWS general require for mitigation in other permits.	2
Existing protected lands "as is" (acres)*	6,000	6,000	A preliminary review conducted by JPA staff, JPA GIS support, and CDFW and FWS indicate that up to 35,000 acres of existing lands may contribute to the conservation strategy. Based on other NCCPs, we anticipate the actual range of eligible acres between 14,000 and 30,000.	3
Existing protected lands "enrolled" (acres)**	3,500	3,500	See above.	3
NHP fee title (acres)	500	500	N/A. JPA assumption regarding number of acres of fee title acquisition (versus easements) that is part of the JPA share of new conservation lands.	N/A
Avg. land acquisition cost - easement (\$/acre)	\$ 6,066	\$ 6,066	N/A. Derived directly from the first administrative draft, which was based on recent appraisals for easement acquisition.	N/A
Avg. land acquisition cost - fee title (\$/acre)	\$ 10,110	\$ 10,110	N/A. Derived from first administrative draft.	N/A
Easement enrollment cost (\$/acre)	\$ 3,033	\$ 3,033	N/A. JPA staff estimate of the cost to enroll existing protected lands is equal to 1/2 the cost of purchasing an easement.	N/A
All other costs (\$/acre)	\$ 3,943	\$ 3,943	N/A. Derived directly from the first administrative draft	N/A
Federal/state cost share (%)	50%	50%	Our expectation is local funds would account for approximately half of these new conservation lands.	5
State only cost share (%)	10%	10%	The state may be able to contribute slightly more than the 50% federal/state allocation if funds are available specific to Yolo County. The JPA is, for example, developing one of two NCCPs currently eligible for Delta NCCP funding from the state Wildlife Conservation Board (WCB). WCB currently has \$10.6 million available for expenditure from this funding source over the next four and a half years. Not only would the Yolo NHP be one of only two NCCPs to qualify for these funds, CDFW can consider the statewide significance of the Swainson's hawk and the central role Yolo County must play in its conservation as a justification for supporting grants to this locally-based plan.	6
Yolo Habitat JPA share (%)	40%	40%	See above.	6
New conservation lands	10,000 to 13,000	10,000 to 13,000	From the information available to the CDFW and FWS, we would expect the total conservation target could be achieved with 10,000 to 20,000 acres of new conservation lands.	5
CCRMP funding revenue (\$/year)	\$ 400,000	\$ 400,000	N/A. Estimate from Yolo County and JPA staff.	N/A
Davis open space tax revenue (\$/year)	\$ 200,000	\$ 200,000	N/A. Estimate from the City of Davis and JPA staff	N/A
Solano County Water Agency revenue (\$/year)	\$ 210,000	\$ 210,000	N/A. Estimate from the Solano County Water Agency and JPA staff.	N/A
Foundation or other non-state/federal grants	\$ 200,000	\$ 200,000	N/A. Estimate from JPA staff.	N/A
Agricultural acreage monitoring	Monitor agricultural acreage to track production of high-value foraging crops and row crop mix. Implement pilot agricultural conservation strategy (if foundation funds available) to encourage farmers to grow high-value foraging crops if acreage drops below a level agreed to with the wildlife agencies. Seek funds for additional hedgerow creation of permanently protected lands in cooperation with local non-profit organizations.		Although conservation easement and fee title acquisition have been identified as the primary mechanisms for conservation, agricultural lands that remain in private ownership and management still play a role in conservation and can be used to support NCCP findings. The continuation of certain agricultural activities may benefit covered species, habitat connectivity, and ecosystem services. Additional conservation actions, such as agricultural conservation strategies, could be developed and implemented separately from an NCCP. The effectiveness of such strategies to offset any substantial agricultural practice changes and help retain high quality Swainson's hawk and giant garter snake habitat in the NHP area could be monitored. The results of these separate efforts could be evaluated as part of the NCCP and the over NCCP conservation reserve acres.	5

\*Assumes existing protected lands count towards target at no additional cost to member agencies or state/federal government

\*\*Assumes a cost of \$3,033/acre (half of acquisition costs) to enroll land in the program.



CITY COUNCIL  
STAFF REPORT

**TO:** Honorable Mayor and Councilmembers  
**DATE:** January 21, 2014  
**THROUGH:** John W. Donlevy, Jr., City Manager  
**FROM:** Shelly A. Gunby, Director of Financial Management *Shelly*  
**SUBJECT:** Waive Second Reading and Adopt Ordinance 2014-01 Adding Chapter 15.90 of Title 15 of the Winters Municipal Code to Establish a Drainage Impact Fee

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**RECOMMENDATION:**

Staff recommends the City Council

1. Waive Second Reading of Ordinance 2014-01
2. Adopt Ordinance 2014-01 Adding Chapter 15.90 of Title 15 of the Winters Municipal Code to Establish a Drainage Impact Fee

**BACKGROUND:**

On January 7, 2014 Ordinance 2014-01 was introduced and a public hearing was held regarding establishing a flood overlay zone fee which would allow the City to establish a finalized citywide flood area fee schedule by Resolution after adoption of Ordinance 2014-01.

Development is taking place in areas identified by the Wood Rogers August 2005 Moody Slough and Dry Creek Subbasins Storm Drainage Cost Allocation Report. Fees were temporarily set in 2010, but those fees have expired. It is pertinent to establish the Drainage Impact Fee so that the City of Winters has the authority to set the actual fees by Resolution after adoption of Ordinance 2014-01.

**FISCAL IMPACT:**

Ability to collect impact fees after adoption of Ordinance.

**ATTACHMENTS:**

Wood Rogers August 2005  
EPS Flood Area Storm Drainage Development Impact Fee Nexus Study  
Ordinance 2014-01

**ORDINANCE NO. 2014-01**

**AN ORDINANCE OF THE CITY OF WINTERS  
ADDING CHAPTER 15.90 TO TITLE 15 OF  
THE WINTERS MUNICIPAL CODE TO ESTABLISH  
A DRAINAGE IMPACT FEE**

The City Council of the City of Winters hereby does ordain:

**SECTION 1.            CHAPTER 15.90 (DRAINAGE IMPACT FEE).**

Chapter 15.90 is hereby added to Title 15 of the Winters Municipal Code to read as follows:

Chapter 15.90

DRAINAGE IMPACT FEE

Sections:

- 15.90.010 Findings and Purpose.
- 15.90.020 Definitions.
- 15.90.030 Drainage Impact Fee.
- 15.90.040 Administration of Drainage Impact Fund.
- 15.90.050 Payment of Drainage Impact Fee.
- 15.90.060 Amount of Drainage Impact Fee.
- 15.90.070 Exemptions.
- 15.90.080 Annual Fee Review.
- 15.90.090 Inflationary Adjustments.
- 15.90.100 Authorization of Credits.
- 15.90.110 Amount of Credits.
- 15.90.120 Procedure for Credits.
- 15.90.130 Apportionment of Credits.
- 15.90.140 Criteria For Reimbursement.
- 15.90.150 Procedure for Reimbursement.
- 15.90.160 Reimbursement Agreements.
- 15.90.170 Refund.

15.90.010 Findings and Purpose.

A. On May 19, 1992, the City Council of the City of Winters approved and adopted its General Plan (the "General Plan") identifying proposed growth within the

City limits and further identifying the impacts of said growth upon health, safety and public facilities within the City including the impacts on flooding and the City's drainage system.

B. City of Winters General Plan, Land Use Policy No. 1.A.9, states that, "No new development may occur within the flood-overlay area shown in Figure II-1 until a feasibility and design study for a comprehensive solution to the 100-year flooding problem has been completed and a fee schedule has been established or financing program adopted which includes all affected and contributing properties for financing the comprehensive flood control solution." Further, General Plan, Health and Safety Policy VII.B.4, states that, "To mitigate flooding impacts associated with Moody and Chickahominy Sloughs, the City shall require property owners who are affected by or contributing to such flooding to participated in the development and implementation of a comprehensive solution to the flooding problem in proportion to their relative contribution to the flooding problem or benefit from the program adopted."

C. General Plan, Public Facilities and Services Element Goal IV.D, states that it is the City's goal, "To maintain an adequate level of service in the City's storm drainage system to accommodate runoff from existing and future development and to prevent property damage due to flooding." General Plan, Health and Safety Element Goal VII.B, states that it is the City's goal, "To prevent loss of life, injury and property damage due to flooding."

D. The City of Winters commissioned the engineering firm of Wood Rodgers, Inc., to prepare the Moody Slough Sub-basin and Putah Creek/Dry Creek Sub-basins Drainage Reports, dated September 9, 2009. These reports identify a comprehensive flood solution, including the storm drainage facility requirements and estimated costs of the facilities needed to serve new development within the flood overlay area. The Draft Storm Drainage Costs Allocation Report, prepared by Wood Rodgers, Inc., and dated September 9, 2009, contains a cost allocation of the needed facilities within the various of the flood overlay area, through build-out of the City's General Plan. These reports are collectively referred to as the "Wood Rodgers Reports".

E. In order to further determine the need for drainage facilities created by new development and to spread the cost of such facilities among those who create the need or benefit from such facilities, the City commissioned the firm of Economic & Planning Systems, Inc., to prepare the Flood Area Storm Drainage Development Impact Fee Nexus Study, dated November 4, 2005. This study, utilizing information contained in the Wood Rodgers Reports, calculated the fees for the various zones within the flood overlay zone needed to fund the requisite facilities.

F. Analysis of the land uses expected at buildout of the City pursuant to the General Plan makes it possible to estimate the level of residential, commercial, industrial and other development. It is therefore possible to arrive at a fee which equitably spreads the burden of financing drainage facilities to those who create the need for, or benefit from, such facilities. It is the intent of this chapter to create such a fee. The purpose of this ordinance is to implement the requirements of the General Plan and, under the

authority of Article XI, Section 7, of the California Constitution, and consistent with the provisions of the Mitigation Fee Act (California Government Code Section 66000, et seq.), to establish the appropriate method of ensuring that sufficient funding for drainage facilities is available to serve residential, industrial, commercial and other growth in the flood overlay area of the City. The flood overlay area as shown in Figure II-1 of the General Plan is referred to in this Chapter as the "Flood Area."

G. The failure to impose the conditions and regulations of this chapter relating to payment of the fee on final maps or building permits would jeopardize residents of the community, in that it would permit construction and development to proceed without adequate drainage facilities or means of financing such facilities.

H. The cost estimates set forth in the Flood Area Storm Drainage Development Impact Fee Nexus Study ("Nexus Study") are reasonable cost estimates for constructing the drainage facilities specified therein, and the fees which may be generated by new development will not exceed the total of these construction costs made necessary by such new development. The fees established by this chapter have been calculated in the manner called for in the Nexus Study in order that the cost of needed facilities is borne by the type of development causing the need.

I. Based upon all evidence and testimony presented, including the Wood Rodgers Reports and the Nexus Study, the City Council hereby finds that there is a clear and demonstrated relationship between the use of the fees provided for herein, namely the construction of drainage facilities, and the types of projects upon which the fees are to be imposed. Development will generate a need for additional drainage infrastructure as described in the Nexus Study.

J. Based upon all evidence and testimony presented, including the Wood Rodgers Reports and the Nexus Study, the City Council hereby finds that there is a reasonable relationship between the need for drainage facilities, and the type of development projects upon which the fee is to be imposed, namely new residential, industrial and commercial construction. From careful consideration of the matter, the City Council finds that (1) new development will adversely impact the drainage within the Flood Area, (2) will create a need for additional drainage facilities, and (3) the construction of drainage facilities, as set forth in the Wood Rodgers Reports and the Nexus Study are appropriate to serve such new development in light of these impacts.

K. Based upon all evidence and testimony presented, including the Nexus Study, the City Council finds that there is a reasonable relationship between the amount of the fees as provided for in this Chapter and the cost of drainage facilities, made necessary by new development. Further, the City Council finds that the manner in which the fee is allocated upon new development is fair and does not exceed the cost of providing drainage facilities for new development.

L. The establishment of this drainage impact fee is exempt from the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines Sections 15061(b)(3) and 15273, in that there is no possibility that the establishment of this fee

may have a significant effect on the environment, and further because the purpose of establishing this fee is to assist the City in maintaining services within its jurisdictional boundaries. This exemption is specifically based upon the following facts:

1. The environmental impacts of the facilities described in the Nexus Study, including cumulative and growth-inducing impacts, have been identified in the Final Environmental Impact Report (the "EIR") prepared for the 1992 General Plan and certified by the City Council in Resolution No. \_\_\_\_\_.
2. The establishment of this fee will not create a need for additional drainage facilities.
3. Prior to action on site-specific new development or drainage infrastructure, subsequent environmental review will be undertaken as necessary pursuant to the California Environmental Quality Act.
4. The establishment of this fee does not commit the City to any definite course of action and does not dictate how funds will be spent, or in any way narrow the field of options and alternatives available to the City.

M. The fee established by this chapter is in addition to any other fees or charges or taxes, required by law or City code or as a condition of development.

15.90.020     Definitions. The following words are defined for purposes of this chapter as follows:

A. "Building Permit" means the permit issued or required by the City for the construction of any structure pursuant to Title 15 of the Winters Municipal Code.

B. "Director" means the Public Works Director.

C. "Facilities" means the drainage improvements or infrastructure generally identified in the Wood Rodgers Reports and the Nexus Study, and more specifically determined from time to time by the City Council.

D. "Fee" or "Drainage Impact Fee" means the fee(s) established by this chapter.

E. "General Plan" refers to the City of Winters General Plan adopted by the Winters City Council in 1992, including all subsequent updates and amendments.

15.90.030     Drainage Impact Fee.

There is hereby established a Drainage Impact Fee which shall be imposed on all new development that will be served by the new Facilities. This Fee shall be imposed on all development within the City, unless such property is otherwise exempt as provided for in Section 15.90.070 of this chapter. The Fee established by this chapter is

in addition to any other fees or charges or taxes that are required by law or City code as a condition of development.

15.90.040 Administration of Drainage Impact Fund.

A. The Director of Financial Management is directed to establish a special fund entitled the Drainage Facilities Fund. All fees collected pursuant to this chapter shall be deposited in this fund and shall be expended solely to:

1. Pay for the construction of the Facilities, or to reimburse the City for Facilities constructed by the City with funds advanced by the City from other resources; or
2. Reimburse developers who have been required or permitted to install Facilities, which are oversized with supplemental size, length or capacity.

B. The City Council, as part of the annual budget and capital improvements programming process shall, each year, identify the Facilities anticipated to be funded in whole or in part with the Drainage Impact Fees collected, and appropriate funds accordingly.

15.90.050 Payment of Drainage Impact Fee.

Except as otherwise provided by this chapter the Fee imposed pursuant to this chapter shall be paid prior to the approval of a final map, unless no final map is required for the development, in which case, the Fee shall be paid at or prior to the issuance of any Building Permit for development subject to this chapter.

15.90.060 Amount of Drainage Impact Fee.

A. The amount of the Drainage Impact Fee hereby established shall be set by resolution adopted by the City Council, which may be amended from time to time, as the City Council deems necessary and appropriate. The resolution setting the amount of the Fee shall list the types of development subject to the Fee (i.e. residential, commercial, industrial); identify the eight different drainage zones within the City; and, set the fee for each type of development within the various zones of the Flood Area on a per acre basis, in accordance with the Nexus Study.

B. If the proposed development covers fifty percent (50%) or more of a parcel, then the Fee shall be computed based upon the gross acreage of the parcel. If the proposed development covers less than fifty percent (50%) of a parcel, then the Fee shall be computed based only upon the covered area of the parcel, however, at such time as development progresses to the point where it covers fifty percent (50%) or more of the parcel, then the balance of the Fee shall be due for the remainder of the parcel. The balance of the Fee shall be computed by figuring the total Fee based upon the gross acreage of the parcel and subtracting the portion of the Fee already paid to the City.

C. For the purposes of this section, the term "covers" shall include the horizontal area of buildings, structures, roads, parking areas, any impervious surfaces, residential yards (front, side and rear) and landscaped areas.

15.90.070 Exemptions.

A. No fee shall be charged for the following types of development:

1. Development under construction for which a valid Building Permit is in force upon the effective date of the ordinance codified in this chapter unless such Building Permit contains an express condition requiring the payment of this Fee.
2. Development within a subdivision subject to a Development Agreement entered into between the developer and the City under Government Code Section 65864 et seq., which agreement is in full force and effect and expressly prohibits the imposition of additional fees pertaining to drainage facilities, unless amended.
3. Development within a subdivision subject to a vested tentative subdivision map under Government Code Section 66498 which prohibits the imposition of the Fee imposed by this Chapter.
4. Existing development, including additions or modifications to existing residential buildings.
5. Public and Quasi-Public development , other than the development of schools.
6. Development outside the boundaries of the Flood Area.

B. Additions to existing commercial or industrial buildings or structures shall be subject to the Fee established by the chapter.

15.90.080 Annual Fee Review.

A. In accordance with Government Code Section 66006, within one hundred and eighty (180) days after the last day of each fiscal year, the City shall make available to the public the following information for the fiscal year:

1. A brief description of the type of fee in the account or fund;
2. The amount of the fee;
3. The beginning and ending balance of the account or fund;
4. The amount of fees collected and the interest earned;
5. An identification of each Facility on which the fees were expended and the amount of the expenditures on each improvement, including a total percentage of the costs of the Facility that was funded with fees;

6. An identification of the approximate date by which the construction of the Facility will commence if the City determines that sufficient funds have been collected to complete financing on an incomplete Facility;
7. A description of each interfund transfer or loan made from the account or fund, including the Facility on which the transferred or loaned fees will be expended, and, in the case of an interfund loan, the date on which the loan will be repaid, and the rate of interest that the account or fund will receive on the loan;
8. The amount of refunds made pursuant to Government Code section 66001(e) and any allocations pursuant to Government Code section 66001(f);
9. Other such data, analysis or recommendations that the city manager may deem appropriate or as requested by the city council.

B. The City Council shall review the above information at the next regularly scheduled public meeting not less than fifteen (15) days after this information is made available to the public. Notice of the time and place of the meeting, including the address where the above information may be reviewed, shall be mailed, at least fifteen (15) days prior to the meeting, to any interested party who files a written request with the City for mailed notice of the meeting.

C. The City Council shall also, at the same noticed public meeting, by resolution, update any of the above information, including the identified Facilities to be constructed with Drainage Impact Fees.

15.90.090 Inflationary Adjustments.

The Fee established by this chapter shall automatically be adjusted on July 1 of each year by a percentage equal to the average of the change in the San Francisco Consumer Cost Index ("CCI") and the change in the 20-City CCI as reported in the Engineering News Record for the twelve month period ending in March of the current year. The determination shall be reported in writing to the City Council by the Director on or about June 30th of each year or as soon as the information is available.

15.90.100 Authorization of Credits.

Whenever a person constructs and/or finances the construction of Facilities authorized by this chapter, in accordance with improvement plans approved by the Director, then such person may be entitled to a credit against Fees, subject to the provisions of this chapter.

15.90.110 Amount of Credits.

Unless otherwise set forth in this chapter, the amount of credits authorized for the construction of a facility shall be determined by the Director based on recent

competitive bids, but shall not exceed the actual cost of construction or the total cost estimate (as adjusted for inflation) for the Facility in the Nexus Study, whichever is less.

15.90.120 Procedure For Credits.

A. Any person desiring and eligible for credits for the construction of Facilities shall execute an agreement with the City authorizing credits. Agreements for credits in an amount of \$20,000 or greater must be approved by the City Council. Agreements for credits in an amount less than \$20,000 may be approved by the City Manager or his/her designee.

B. Tentative credits may, if authorized in a credit agreement, be allocated prior to the acceptance of Facilities, so that they may be subtracted from fees at the time Fees are paid. Credits shall be adjusted as necessary at the time the Facilities are accepted by the City. The person receiving tentative credits shall agree that if the Facilities are not accepted by the City, all tentative credits allocated shall be reimbursed to the City within 60 days of notice of non-acceptance of the facilities. The person receiving tentative credits shall further agree that if tentative credits allocated exceed the final credits, the excess amount shall be reimbursed to the City within 60 days of notice of such amount.

15.90.130 Apportionment of Credits.

A. Except as set forth in this section, credits shall only be applied against Fees due as a result of development for which the construction of Facilities was required or authorized, and in the case of residential development, credits shall be equally apportioned to all lots within the subdivision. Credit agreements may not be assigned without the consent of the City Council.

B. Credits may only be apportioned to parcels not within the subdivision if within thirty (90) days from the date that credits are authorized the Director determines:

1. The parcel or parcels on which credit is sought are contiguous holdings of an individual or firm at the time construction of Facilities is begun;
2. Only credits in excess of the amount of the Fees which would have been due on such subdivision or parcel and each subsequent unit thereof within such contiguous holding may be apportioned to other contiguous parcels;
3. The parcel or parcels to which such credits are to be apportioned must be served by the Facilities for which credits are authorized;
4. An agreement has been executed between the owner of the contiguous parcels and the City establishing the amount to be credited to each parcel prior to improvement plan approval for the initial parcel.

C. When credits are apportioned, the credit amounts shall be based on the rates in effect on the date improvement plans are approved for the parcel to which credits have been apportioned.

15.90.140     Criteria For Reimbursement.

Except where specifically excluded, whenever credits are authorized for the construction of Facilities pursuant to this Chapter, and the credit amount exceeds the amount of the Fees due pursuant to this Chapter, the City shall reimburse the person entitled to such credits in accordance with the provisions of this chapter.

15.90.150     Procedure For Reimbursement.

Excess credits shall only be reimbursed pursuant to the terms of a reimbursement agreement executed by the City and the person entitled to such credits.

15.90.160     Credit and Reimbursement Agreements.

A. The credit and/or reimbursement agreement shall include the following terms and conditions:

1. The amount of credits to be applied or excess credits to be reimbursed;
2. The estimated schedule for reimbursement of excess credits, taking into account other outstanding reimbursement agreements, a projection of estimated Fees to be paid to the City, and the estimated timing for receipt of such Fees. Such schedule shall not exceed five (5) years from the date of acceptance of the Facilities by the City, unless funds are not available, as determined by the City Manager. If funds are not available when reimbursement is due, payment shall be postponed to the following year;
3. A provision stating, that the estimated schedule for reimbursement notwithstanding, reimbursements shall be prioritized based upon the date of the reimbursement agreement, and when funds are available, each reimbursement shall be paid in full in order of priority.
4. Except as otherwise provided herein, reimbursements shall be paid semi-annually in January and June of each year, based upon available funds.
5. Reimbursement of excess credits of \$10,000 or less shall be made within sixty (60) days of the acceptance of the Facilities by the City.
6. Reimbursement for Facilities shall be made exclusively from the Drainage Facilities Fund. City's obligation to Developer is expressly conditioned and contingent upon the availability of monies within said Funds, as determined by the City Council. Developer shall have no claim against any other source of City

revenue, including but not limited to, general fund moneys. The credit or taxing power of the City is not pledged for the payment of any obligations arising from this agreement.

7. Interest on the unpaid balance of excess credits shall be paid annually in December at the net City treasury pool rate for the prior fiscal year. Interest shall not begin to accrue, however, until one hundred and eighty (180) days after the Facilities are accepted by the City;
8. The agreement may only be assigned by a written amendment to the agreement executed by the City Manager, the assignor(s) and the assignee(s);
9. Notwithstanding any provisions to the contrary, excess credit shall not be reimbursed unless and until the Facilities are accepted by the City;
10. Other terms as deemed necessary or appropriate by the City Attorney to protect the legal interests of the City.

B. Except as authorized by this section, credit and/or reimbursement agreements must be approved by the City Council. If the City Council has previously approved a credit agreement with a party, the City Manager may approve a reimbursement agreement with the same party if the amount of the reimbursement does not vary from the amount of the credit agreement by more than ten percent (10%). Credit and/or reimbursement agreements for amounts less than \$20,000 may be approved by the City Manager or his/her designee.

15.90.170 Refund.

A. If five years after collection any portion of a fee collected pursuant to this Ordinance is unexpended or uncommitted, the City shall review the Fee and the purpose for which it was charged, and make a determination and finding as to the continued need for the Fee and the reasonable relationship between the fee and the purpose for which it is intended. This review and findings shall be made once each fiscal year in any year that there are unexpended or uncommitted fees, beginning with the fifth year after the effective date of this Ordinance.

B. If the appropriate finding cannot be made, the City shall cause the Fees to be refunded to the then current owner of record of the project on which the Fee was imposed pursuant to Government Code sections 66001(d) and 66001(e).

**SECTION 2. SEVERABILITY.**

If any section, subsection, clause, phrase, or portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not effect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, subsection, clause, phrase, or portion thereof, irrespective of the fact

that any one or more sections, subsections, clauses, phrases, or portions be declared invalid or unconstitutional.

**SECTION 3.**            **EFFECTIVE DATE.**

This Ordinance shall become effective sixty (60) days from and after its final passage and adoption, provided it is published in full within twenty (20) days after its adoption in the Winters Express.

This Ordinance was introduced and the title thereof read at the regular meeting of the Winters City Council on January 7, 2014, and further reading was waived.

On a motion by Council Member \_\_\_\_\_, seconded by Council Member \_\_\_\_\_, the foregoing ordinance was passed and adopted by the City Council of the City of Winters, State of California, this 21st day of January, 2014, by the following vote, to wit:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSTAIN:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CITY CLERK



# WOOD RODGERS

September 9, 2005

Mr. Nicholas Ponticello, P.E.  
City of Winters  
c/o Ponticello Enterprises  
1216 Fortna Avenue  
Woodland, California 95776

Dear Mr. <sup>Nich</sup> Ponticello:

Subject: City of Winters, Moody Slough Subbasin and Putah/Dry Creek Subbasins Drainage Reports and Moody Slough and Putah Cree/Dry Creek Subbasins Drainage Allocation Report – Submittal of Final Reports

Enclosed are the final reports that were prepared by Wood Rodgers, Inc. for the City of Winters (City). These reports were prepared to guide the City in implementing drainage infrastructure improvements to accommodate planned development. The reports (10 copies each) are entitled as follows:

1. *Moody Slough Subbasin Drainage Report, August 2005*
2. *Putah Creek / Dry Creek Subbasins Drainage Report, August 2005*
3. *Moody Slough and Putah Creek / Dry Creek Subbasins Storm Drainage Cost Allocation Report, August 2005*

Please note that the models for the hydrologic and hydraulic analyses are not included in the Moody Slough and Putah Creek / Dry Creek subbasin reports. Two CD's, which contain the modeling information for each respective report, are enclosed with this transmittal for the City's use. Wood Rodgers has noted in the reports that copies of this information can be provided upon request from the City.

Wood Rodgers appreciates having the opportunity to assist the City with this assignment.

Sincerely,

  
Francis E. Borcalli, P.E.  
Water Resources Department Manager

Enclosures: 10 Copies of Each Report  
Two CD's

J:\jobs\8220-MoodySlough\_PutahCreek-DryCreek\civil\docs\correspondence\Ponticell-Final-Report-Ltr\_9-8-05.doc



# Moody Slough and Putah Creek / Dry Creek Subbasins Storm Drainage Cost Allocation Report



*August 2005*

*Prepared By:*

**WOOD RODGERS**  
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

3301 C Street, Bldg 100-B  
Sacramento, CA 95816

Tel: 916.341.7760  
Fax: 916.341.7767





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Opinion of Probable Costs – Ultimate Conditions – City of Winters “Putah Creek / Dry Creek Subbasins Drainage Report,” August 2005





## **INTRODUCTION**

As part of developing the Moody Slough Subbasin Drainage Report and the Putah Creek/Dry Creek Subbasins Drainage Report for the City of Winters (City), the City requested Wood Rodgers, Inc. to allocate the costs of the planned facilities according to zones of benefit. With corroboration from the City, the information presented in this report could provide a basis to assess drainage impact fees to land designated for development within the City's General Plan area.

## **APPROACH**

Only land within the City's General Plan area would be allocated costs for storm drainage facilities. Although land outside the City's General Plan area may be contributing to sizing particular drainage facilities, costs are allocated to only land designated for development within the Plan area.

It is important to note that, at the direction of the City, land that is already developed within the City would not be allocated drainage impact fees for the construction of new facilities, even though there would be some indirect benefit to the land and the people by having a more comprehensive drainage solution for the region.

In addition, at the direction of the City, land within the Rancho Arroyo drainage district would not be allocated any portion of the cost of facilities to handle runoff from public land draining to the Putah Creek diversion channel. Similarly, land draining to the Putah Creek diversion channel would not be allocated any costs for public land impacts within the Rancho Arroyo drainage basin. From a drainage impact and cost allocation perspective, the Rancho Arroyo drainage basin would be considered separately.

Costs for facilities within the Rancho Arroyo drainage basin would not be used in calculating the fees for the General Plan flood overlay.

To facilitate the equitable allocation of costs for drainage facilities, land within the affected drainage sheds that is designated for development within the General Plan area was separated into drainage zones. The cost allocation zones represent land benefiting from a particular drainage facility or group of facilities. Accordingly, drainage facilities costs were allocated in





relation to respective drainage facilities. The eight cost allocation zones or zones of benefit are identified on Figure 1, and the facilities benefiting each zone are identified in Table 1.

The approach employed by Wood Rodgers to allocate costs is based upon land use and the relative contribution to storm runoff. For this purpose, runoff coefficients were used.

Although land designated either Public/Quasi Public (PQP), Open Space (OS), or Park Recreation (P-R or PR) contributes runoff, this land, which amounts to 55% (566 acres/1,033 acres) of the developable land, is treated as "exempt" and no costs are allocated to such land. Therefore, exempt land is not included in the allocation of costs. Roadways identified within the General Plan were treated similarly.

## **DRAINAGE FACILITIES COST**

The estimated cost of drainage facilities as presented in the drainage reports for the Moody Slough Subbasin (August 2005) and the Putah/Dry Creek Subbasins (August 2005), were used for the cost allocation analysis. Presented in the Appendix is a copy of the storm drainage facilities costs for the respective subbasins.

## **COST ALLOCATION ANALYSIS**

A determination of the cost allocation as discussed in the Approach requires a detailed breakdown of land use within the respective zones.

The City provided Wood Rodgers the most recent representation of land use (in digital format) for representing the City's General Plan. The areas for the respective land uses obtained from the digital files, provided the basis for determining land use areas within the City's respective drainage zones.

Land already developed or within the Rancho Arroyo drainage basin, within the respective zones, was removed from this analysis. These areas are discussed below under the description for each drainage zone.

There were no adjustments made to reflect the footprint (acreage) of drainage facilities presented in the drainage reports. The cost of land to construct the drainage facilities is included in the



opinion of probable cost for each drainage facility. The implementation of a drainage impact fee/credit program assumes the equitable handling of costs for the drainage facilities.

### Drainage Zone 1

Drainage Zone 1 (DZ1) is located in the western portion of the Moody Slough subbasin and is described in the Moody Slough Drainage Report (as well as Zones 2-4). A specific issue worth noting in this report is the designation of runoff corridors located in DZ1. There is no cost identified in the Drainage Report for the land associated with runoff corridors (defined in the report) as these are presumed to be dedicated at no cost to the City by development. However, it is clearly identified that land with designated runoff corridors must preserve the corridor and use (or replace it) as “conduits” for collecting and conveying storm drainage through the property. Presented in Table 2 are the drainage impact fees for land within DZ1.

### Drainage Zone 2

Drainage Zone 2 (DZ2) is located in the northern central portion of the Moody Slough subbasin adjacent to and east of DZ1. This land contains the three primary detention ponds that are proposed in the Moody Slough Subbasin Drainage Report, as well as the relocated Willow Canal, the Winters North Drain, and the Winters north levee along its northern boundary. The facilities that are needed to serve land within this zone are identified in Table 1. Presented in Table 3 are the drainage allocation costs for land within DZ2.

### Drainage Zone 3

Drainage Zone 3 (DZ3) is currently entirely in a floodplain area where much of the Moody Slough runoff spills from Chickahominy Slough and ponds before flowing under and over Interstate 505. Once facilities in and adjacent to DZ2 and the Winters north levee are constructed, DZ3 could become fully isolated with the construction of a floodwall along Interstate 505, which prevents highway overflow from spilling back into the City. Land within DZ3 benefits from the Putah Creek diversion channel, however, it derives no benefit from the detention storage in DZ2, which regulates the peak flow conditions in the Putah Creek diversion channel. From a flood control perspective, DZ3 would be designed to drain runoff originating within the zone as quickly as possible, and earlier than the peak flow from DZ2. Presented in Table 4 are the drainage allocation costs for land within DZ3.





As previously noted, land currently developed within DZ3 will not be allocated any cost for the proposed storm drainage facilities. The amount of this land was estimated as eight acres in the heavy industrial area and five acres in the light industrial area.

#### Drainage Zone 4

Drainage Zone (DZ4) is located in the west and south portion of the Moody Slough subbasin between the existing City and Drainage Zone 1 and Zone 2. Land in this zone is planned to drain into two detention/water quality basins in DZ2, and would benefit by the Putah Creek diversion channel as well. This land is not protected directly by the Winters North Drain and levee, thus is not allocated any cost for these facilities. Presented in Table 5 are the allocated costs for land within DZ4.

#### Drainage Zone 5

Drainage Zone 5 (DZ5) is located to the north of State Highway 128 and is bordered by Interstate 505 on the east DZ3 on the north and the Putah Creek diversion channel on the west. The facilities and costs for facilities benefiting this drainage zone are defined in the Putah/Dry Creek Drainage Report. The northern portion of the Putah Creek diversion channel runs through it and would greatly improve drainage in the area. As in DZ3, the runoff from DZ5 under larger storm events should reach the Putah Creek diversion channel earlier in the storm and therefore the land within DZ5 is not benefiting by the detention ponds in DZ2.

There is an existing gasoline station located in an area designated as highway service commercial. A portion of this area (approximately 2.25 acres) was excluded from the allocation of drainage facilities costs.

Presented in Table 6 are the allocated costs for land within DZ5.

#### Drainage Zone 5A

While flooding land upstream within the Moody Slough subbasin is mitigated by the facilities outlined in the Moody Slough DMP, DZ5A is also receiving overland runoff from existing City land to the west, on the north side of State Highway 128. Therefore, a catchment and diversion facility is proposed along the western and southern boundary of DZ5 to direct overland flow



from urban land upstream to bypass the DZ5A water quality treatment facilities. It is recognized that the overland flow from upstream lands would occur later in the storm than direct runoff within DZ5, and the occurrence of such flow would only be during very large storm events (greater than 10-year recurrence), for which storm water quality treatment operations are not designed to be effective. While this flow could be routed through DZ5A and commingled with direct runoff from DZ5A, the size of the combined facility would likely be greater than a single pipe could convey. Overland flow would have to be routed through the streets or a second (parallel) pipe would have to be constructed, complicating on-site design with no real savings. It could then also be argued that DZ5A has taken on a peak flow timing that is more consistent with DZ2 and should therefore contribute to DZ2's detention. This timing would be primarily due to the upstream overflow runoff and not the direct DZ5A runoff.

Presented in Table 7 are the allocated costs for land within DZ5A.

#### Drainage Zone 5B

Drainage Zone 5B (DZ5B) is located between DZ4 and DZ5A and is planned to be connected to the existing City storm drain system that conveys runoff up to a 10-year event directly south to Putah Creek. This land is currently undeveloped; however, when it is developed it would be graded to direct runoff greater than the storm drain capacity to the east toward DZ5A. The overland flow would be collected and diverted through the facility outlined in DZ5A; therefore, DZ5B should contribute to its cost as well as the Putah Creek diversion channel. However, DZ5B is not benefiting by the on-site regional drainage facilities serving DZ5A and should not contribute to these facilities. It is feasible for this site to be graded to redirect overland runoff northward; however, it is assumed this would unnecessarily encumber this area with drainage costs providing little additional benefit. Presented in Table 8 are the allocated costs for land within DZ5B.

#### Drainage Zone 6

Drainage Zone 6 (DZ6) is located south of State Highway 128 and is bordered by Interstate 505 on the east and Putah Creek on the south, and is composed primarily of undeveloped land. DZ6 is similar to DZ5 in that it is proposed to drain directly to the Putah Creek diversion channel and has on-site water quality treatment, collecting upstream overflow as well. The two main differences between DZ6 and DZ5 is the location (lands south of Highway 128) and the





recommended configuration of the diversion flow commingling with the on-site flow before entering the Putah Creek diversion channel. As stated under DZ5, upstream overflow would only occur during larger storm events under which runoff exceeds the design requirement for storm water quality treatment. Presented in Table 9 are allocated costs for land within DZ6.

### Drainage Zone 7

Drainage Zone 7 (DZ7) is located within the Rancho Arroyo Drainage Basin that is already assessed drainage impact fees by an ordinance adopted by the City Council. This drainage zone is hydrologically and hydraulically isolated from the rest of the City and has an existing floodplain (pond) identified on the latest Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA). To our knowledge, there has been no Letter of Map Revision for any homes constructed recently within the basin.

The City determined this zone to have an adequate fee structure and even though the 2004 Drainage Master Plan identifies facilities to drain this area, the existing fee has been determined sufficient to construct all newly required facilities. Therefore, no further fee assessment is necessary under this effort.

## **RESULTS**

The allocated costs, according to land use within the respective drainage zones, are summarized in Table 10.

Table 11 provides an overview of the existing developed land within drainage zones that are not contributing fees.

Table 12 provides a breakdown of drainage costs by facility and drainage zone to clarify the redistribution of exempt land costs to the remaining plan areas.



TABLE 1

CITY OF WINTERS  
MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
STORM DRAINAGE COST ALLOCATION REPORT

DRAINAGE ZONES BENEFITING FROM RESPECTIVE STORM DRAINAGE FACILITIES

Storm Drainage Facility <sup>1</sup>	Drainage Zone							
	1	2	3	4	5	5A	5B	6
Putah Creek Diversion Channel	X	X	X	X	X	X	X	X
Detention/Water Quality Pond #1	X	X		X				
Open Channel Connecting Ponds 1 & 2	X	X		X				
Detention/Water Quality Pond #2	X	X		X				
Detention/Water Quality Pond #3	X	X						
Water Quality Pond #4	X							
Water Quality Pond #5			X					
Winters North Drain		X	X					
Winters North Drain Ultimate Levee		X	X					
I-505 Floodwall			X		X			
Grant Street Interceptor						X	X	
Area 5 On-Site					X			
Area 5A On-Site						X		
Area 6 Facilities								X
Drainage Report	X	X	X	X	X	X	X	X
Future Drainage Report Update	X	X	X	X	X	X	X	X

<sup>1</sup>Storm drainage facilities are identified in the "Moody Slough Subbasin Drainage Report," August 2005; and the "Putah Creek/Dry Creek Subbasins Drainage Report," August 2005.

TABLE 2

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 1

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	47	1,869,846	40,031
Low Density Residential - 1.1 to 4.0 DU	12	540,145	43,630
Medium Density Residential - 4.1 to 6.0 DU	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	0	0
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	0	0	0
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	0	0	0
Light Industrial	0	0	0
Heavy Industrial	0	0	0
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public	252	0	0
Recreation/Parks	13	0	0
Open Space	0	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>325</b>	<b>2,409,991</b>	<b>-</b>

**TABLE 3**  
**CITY OF WINTERS**  
**MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS**  
**STORM DRAINAGE COST ALLOCATION REPORT**

**ALLOCATED COSTS - DRAINAGE ZONE 2**

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	23	1,245,300	54,451
Medium Density Residential - 4.1 to 6.0 DU	47	3,004,684	63,659
Medium/High Density Residential - 6.1 to 10.0 DU	44	2,716,340	61,890
High Density Residential - 10.1 to 20.0 DU	4	227,198	62,936
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	6	429,351	68,151
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	0	0	0
Light Industrial	0	0	0
Heavy Industrial	20	1,223,299	60,410
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public (Schools)	44	2,918,942	67,102
Public/Quasi-Public	4	0	0
Recreation/Parks	65	0	0
Open Space	117	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>374</b>	<b>11,765,113</b>	<b>-</b>

TABLE 4

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 3

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	0	0	0
Medium Density Residential - 4.1 to 6.0 DU	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	0	0
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	0	0	0
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	0	0	0
Light Industrial	39	1,800,578	45,700
Heavy Industrial	8	363,654	43,761
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public	0	0	0
Recreation/Parks	0	0	0
Open Space	0	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>48</b>	<b>2,164,232</b>	<b>-</b>

TABLE 5

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 4

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	49	1,381,539	27,916
Medium Density Residential - 4.1 to 6.0 DU	14	451,144	33,027
Medium/High Density Residential - 6.1 to 10.0 DU	2	66,079	32,077
High Density Residential - 10.1 to 20.0 DU	21	684,515	32,304
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	4	155,810	35,331
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	0	0	0
Light Industrial	0	0	0
Heavy Industrial	0	0	0
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public	33	0	0
Recreation/Parks	16	0	0
Open Space	4	0	0
Pond	0	0	0
<b>TOTAL</b>	143	2,739,087	-

TABLE 6

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 5

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	0	0	0
Medium Density Residential - 4.1 to 6.0 DU	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	0	0
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	0	0	0
Highway Service Commercial	3	95,514	28,597
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	0	0	0
Light Industrial	10	265,487	27,829
Heavy Industrial	0	0	0
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public	0	0	0
Recreation/Parks	0	0	0
Open Space	0	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>13</b>	<b>361,001</b>	<b>-</b>

TABLE 7

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 5A

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	32	1,190,911	37,604
Medium Density Residential - 4.1 to 6.0 DU	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	0	0
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	0	0	0
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	14	680,729	48,903
Light Industrial	0	0	0
Heavy Industrial	0	0	0
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public	0	0	0
Recreation/Parks	0	0	0
Open Space	14	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>59</b>	<b>1,871,640</b>	<b>-</b>

TABLE 8

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 5B

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	2.4	59,787	25,441
Medium Density Residential - 4.1 to 6.0 DU	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	0	0
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	0	0	0
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	0	0	0
Light Industrial	0	0	0
Heavy Industrial	0	0	0
Business/Industrial Park	0	0	0
Commercial/Business Park	0	0	0
Public/Quasi-Public	0	0	0
Recreation/Parks	5	0	0
Open Space	0	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>7</b>	<b>59,787</b>	<b>-</b>

TABLE 9

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

ALLOCATED COSTS - DRAINAGE ZONE 6

Land Use	Area (ac)	Cost, <sup>1</sup> (\$)	Cost Per Acre (\$/ac)
Rural Residential - 0.5 to 1.0 DU	0	0	0
Low Density Residential - 1.1 to 4.0 DU	0	0	0
Medium Density Residential - 4.1 to 6.0 DU	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	0	0
Neighborhood Commercial (Residential Allowance - 6.1 to 10.0 DU)	1	47,728	33,144
Highway Service Commercial	0	0	0
Central Business District	0	0	0
Office	0	0	0
Planned Commercial	10	337,400	33,472
Light Industrial	0	0	0
Heavy Industrial	0	0	0
Business/Industrial Park	0	0	0
Commercial/Business Park	53	1,747,538	32,738
Public/Quasi-Public	0	0	0
Recreation/Parks	0	0	0
Open Space	0	0	0
Pond	0	0	0
<b>TOTAL</b>	<b>65</b>	<b>2,132,665</b>	<b>-</b>

TABLE 10

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

SUMMARY OF ALLOCATED COSTS

Land Use	Allocated Costs, \$/ac							
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5A	Zone 5B	Zone 6
Rural Residential - 0.5 to 1.0 DU	40,031	0	0	0	0	0	0	0
Low Density Residential - 1.1 to 4.0 DU	43,630	54,451	0	27,916	0	37,604	25,441	0
Medium Density Residential - 4.1 to 6.0 DU	0	63,659	0	33,027	0	0	0	0
Medium/High Density Residential - 6.1 to 10.0 DU	0	61,890	0	32,077	0	0	0	0
High Density Residential - 10.1 to 20.0 DU	0	62,936	0	32,304	0	0	0	0
Neighborhood Commercial (Residential Allowance, 6.1 - 10.0 DU)	0	68,151	0	35,331	0	0	0	33,144
Highway Service Commercial	0	0	0	0	28,597	0	0	0
Central Business District	0	0	0	0	0	0	0	0
Office	0	0	0	0	0	0	0	0
Planned Commercial	0	0	0	0	0	48,903	0	33,472
Light Industrial	0	0	45,700	0	27,829	0	0	0
Heavy Industrial	0	60,410	43,761	0	0	0	0	0
Business/Industrial Park	0	0	0	0	0	0	0	0
Commercial/Business Park	0	0	0	0	0	0	0	32,738
Public/Quasi-Public	0	67,102	0	0	0	0	0	0
Recreation/Parks	0	0	0	0	0	0	0	0
Open Space	0	0	0	0	0	0	0	0
Pond	0	0	0	0	0	0	0	0

TABLE 11

CITY OF WINTERS  
 MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
 STORM DRAINAGE COST ALLOCATION REPORT

EXISTING DEVELOPED LANDS WITHIN DRAINAGE ZONES

Lands Within DMP Drainage Zones Contributing Runoff and Not Allocated Costs								
Acres	Drainage Zone							
	1	2	3	4	5	5A	5B	6
	0	0	8	0	2.25	0	0	0

TABLE 12

CITY OF WINTERS  
MOODY SLOUGH AND PUTAH CREEK / DRY CREEK SUBBASINS  
STORM DRAINAGE COST ALLOCATION REPORT

STORM DRAINAGE FACILITIES COSTS ACCORDING TO DRAINAGE ZONE

Storm Drainage Facility <sup>1</sup>	Drainage Zone								Total, \$
	1	2	3	4	5	5A	5B	6	
Putah Creek Diversion Channel	272,348	1,063,701	267,211	475,369	73,029	235,116	11,300	377,334	2,775,410
Detention/Water Quality Pond #1	672,439	2,623,620		1,180,751					4,476,810
Open Channel Connecting Ponds 1 & 2	72,137	281,455		126,668					480,260
Detention/Water Quality Pond #2	512,912	2,001,200		900,633					3,414,745
Detention/Water Quality Pond #3	571,672	2,224,118							2,795,790
Water Quality Pond #4	276,590								276,590
Water Quality Pond #5			212,475						212,475
Winters North Drain		3,327,147	833,163						4,160,310
Winters North Drain Ultimate Levee		119,313	29,877						149,190
I-505 Floodwall			790,215		216,790				1,007,005
Grant Street Interceptor						1,001,457	47,163		1,048,620
Area 5 On-Site					62,630				62,630
Area 5A On-Site						607,535			607,535
Area 6 Facilities								1,711,145	1,711,145
Drainage Report	14,719	57,489	14,442	25,692	3,947	12,707	611	20,393	150,000
Future Drainage Report Update	17,173	67,070	16,849	29,974	4,605	14,825	713	23,792	175,000
<b>TOTAL</b>	<b>2,749,991</b>	<b>11,765,113</b>	<b>2,216,422</b>	<b>2,749,047</b>	<b>336,100</b>	<b>1,151,640</b>	<b>59,787</b>	<b>2,210,266</b>	<b>23,605,315</b>

<sup>1</sup>Storm drainage facilities are identified in the "Moody Slough Subbasin Drainage Report," August 2005; and the "Putah Creek / Dry Creek Subbasins Drainage Report," August 2005.

**CITY OF WINTERS  
DRAINAGE REPORT - MOODY SLOUGH SUBBASIN**

**OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS**

Sheet 1 of 5

Description	Quantity	Unit	Unit Cost, \$	Total Cost, \$
<b>1. Putah Creek Diversion<sup>2</sup></b>				
<b>a. Land Acquisition</b>				
• Fee	10	ac	10,075.00	101,800
• Acquisition Allowance	1	ls	25%	25,450
<b>b. Channel Construction</b>				
• Excavate and Load Into Trucks	100,273	cy	1.78	178,600
• Haul and Dump Excess Material	100,273	cy	1.15	115,600
• Spread, Compact, and Shape Excess Material	100,273	cy	1.47	147,100
• Construct Patrol/Access Roadways	1,770	tn	15.19	26,900
• Construct Fencing on Both Sides of Channel	6,100	lf	16.30	99,400
<b>c. Highway 128 Road Crossing (Five 5'x8' Box Culverts)</b>				
• Excavate and Load Into Trucks	5,355	cy	1.78	9,500
• Haul and Dump Excess Material	1,190	cy	1.15	1,400
• Spread, Compact, and Shape Excess Material	1,190	cy	1.47	1,700
• Reinforced Concrete Structure	557	cy	592.01	329,700
• Structural Backfill	4,162	cy	10.48	43,600
• Pavement Replacement	833	sy	45.06	37,500
• Traffic Control	1	ls	52,390.00	52,400
<b>d. Upstream End - Public Road Crossing (Five 5'x8' Box Culverts)</b>				
• Excavate and Load Into Trucks	5,355	cy	1.78	9,500
• Haul and Dump Excess Material	1,190	cy	1.15	1,400
• Spread, Compact, and Shape Excess Material	1,190	cy	1.47	1,700
• Reinforced Concrete Structure	557	cy	592.01	329,700
• Structural Backfill	4,162	cy	10.48	43,600
• Pavement Replacement	833	sy	45.06	37,500
• Traffic Control	1	ls	52,390.00	52,400
<b>e. Outfall Structure</b>				
• Excavate and Stockpile/Load Into Trucks	780	cy	1.78	1,400
• Haul and Dump Excess Material	420	cy	1.15	500
• Spread, Compact, and Shape Excess Material	420	cy	1.47	600
• Reinforced Concrete Structure	219	cy	592.01	129,600
• Structural Backfill	360	cy	10.48	3,800
<b>Subtotal Putah Creek Diversion Improvements<sup>2</sup></b>				<b>1,782,350</b>
<b>2. Detention/Water Quality Pond #1</b>				
<b>a. Land Acquisition</b>				
• Fee	29	ac	10,075.00	292,200
• Acquisition Allowance	1	ls	25%	73,050
<b>b. Pond Construction</b>				
• Excavate and Load Into Trucks	383,909	cy	1.78	683,800
• Haul and Dump Excess Material	383,909	cy	1.15	442,500
• Spread, Compact, and Shape Excess Material	383,909	cy	1.47	563,200
• Construct Perimeter Road	3,465	tn	15.19	52,600
<b>c. Inlet Structure (Five 10'x5' Box Culverts)</b>				
• Excavate and Load Into Trucks	2,585	cy	1.78	4,600
• Haul and Dump Excess Material	1,670	cy	1.15	1,900
• Spread, Compact, and Shape Excess Material	1,670	cy	1.47	2,400
• Reinforced Concrete Structure	605	cy	592.01	358,200
• Structural Backfill	915	cy	10.48	9,600
<b>d. Outlet Control Structure</b>				
• Obermeyer Control Gate	1	ls	249,500.00	249,500
• Obermeyer Control Gate Installation Cost	1	ls	15%	37,425
• Excavate and Load Into Trucks	1,186	cy	1.78	2,100
• Haul and Dump Excess Material	782	cy	1.15	900
• Spread, Compact, and Shape Excess Material	782	cy	1.47	1,100
• Reinforced Concrete Structure	263	cy	592.01	155,700
• Structural Backfill	404	cy	10.48	4,200
<b>Subtotal Detention/Water Quality Pond #1</b>				<b>2,934,975</b>

**CITY OF WINTERS  
DRAINAGE REPORT - MOODY SLOUGH SUBBASIN**

**OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS**

Sheet 2 of 5

Description	Quantity	Unit	Unit Cost, \$	Total Cost, \$
<b>3. Detention/Water Quality Pond #2</b>				
<b>a. Land Acquisition</b>				
• Fee	23	ac	10,075.00	231,700
• Acquisition Allowance	1	ls	25%	57,925
<b>b. Pond Construction</b>				
• Excavate and Load Into Trucks	388,503	cy	1.78	692,000
• Haul and Dump Excess Material	388,503	cy	1.15	447,800
• Spread, Compact, and Shape Excess Material	388,503	cy	1.47	569,900
• Construct Perimeter Road	2,228	tn	15.19	33,900
<b>c. Outlet Control Weir Structure</b>				
• Excavate and Load Into Trucks	200	cy	1.78	400
• Haul and Dump Excess Material	100	cy	1.15	100
• Spread, Compact, and Shape Excess Material	100	cy	1.47	100
• Reinforced Concrete Structure	50	cy	592.01	29,600
• Structural Backfill	100	cy	10.48	1,000
<b>d. Road Crossing (Five 6'x10' Box Culverts)</b>				
• Excavate and Load into Trucks	1,450	cy	1.78	2,600
• Haul and Dump Excess Material	800	cy	1.15	900
• Spread, Compact, and Shape Excess Material	800	cy	1.47	1,200
• Reinforced Concrete Structure	244	cy	592.01	144,400
• Structural Backfill	650	cy	10.48	6,800
• Pavement Replacement	500	sy	45.06	22,500
<b>Subtotal Detention/Water Quality Pond #2</b>				<b>2,242,825</b>
<b>4. Detention/Water Quality Pond #3</b>				
<b>a. Land Acquisition</b>				
• Fee	14	ac	10,075.00	141,100
• Acquisition Allowance	1	ls	25%	35,275
<b>b. Pond Construction</b>				
• Excavate and Load Into Trucks	234,238	cy	1.78	417,200
• Haul and Dump Excess Material	234,238	cy	1.15	270,000
• Spread, Compact, and Shape Excess Material	234,238	cy	1.47	343,600
• Construct Perimeter Road	1,604	tn	15.19	24,400
<b>c. Road Crossing (Two 8'x10' Box Culverts)</b>				
• Excavate and Load into Trucks	2,070	cy	1.78	3,700
• Haul and Dump Excess Material	350	cy	1.15	400
• Spread, Compact, and Shape Excess Material	350	cy	1.47	500
• Reinforced Concrete Structure	225	cy	592.01	133,200
• Structural Backfill	1,725	cy	10.48	18,100
• Pavement Replacement	500	sy	45.06	22,500
<b>d. Inlet Culverts (Under Proposed Roadway)</b>				
• 24" Diameter (60' Length)	30	ea	4,337.89	130,100
<b>Open Channel Between Wetlands and Pond #3</b>				
<b>a. Land Acquisition</b>				
• Fee	5	ac	10,075.00	51,500
• Acquisition Allowance	1	ls	25%	12,875
<b>b. Channel Construction</b>				
• Excavate and Load Into Trucks	47,435	cy	1.78	84,500
• Haul and Dump Excess Material	47,435	cy	1.15	54,700
• Spread, Compact, and Shape Excess Material	47,435	cy	1.47	69,600
• Construct Patrol/Access Roadways	1,608	tn	15.19	24,400
<b>Subtotal Detention/Water Quality Pond #3</b>				<b>1,837,650</b>
<b>5. Water Quality Pond #4</b>				
<b>a. Land Acquisition</b>				
• Fee	3	ac	10,075.00	26,200
• Acquisition Allowance	1	ls	25%	6,550

**CITY OF WINTERS  
DRAINAGE REPORT - MOODY SLOUGH SUBBASIN**

**OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS**

Sheet 3 of 5

Description	Quantity	Unit	Unit Cost, \$	Total Cost, \$
<b>b. Pond Construction</b>				
• Excavate and Load Into Trucks	11,290	cy	1.78	20,100
• Haul and Dump Excess Material	11,290	cy	1.15	13,000
• Spread, Compact, and Shape Excess Material	11,290	cy	1.47	16,600
• Construct Perimeter Road	455	tn	15.19	6,900
<b>c. Road Crossing (Two 5'x10' Box Culverts)</b>				
• Excavate and Load Into Trucks	560	cy	1.78	1,000
• Haul and Dump Excess Material	235	cy	1.15	300
• Spread, Compact, and Shape Excess Material	350	cy	1.47	500
• Reinforced Concrete Structure	115	cy	592.01	68,100
• Structural Backfill	325	cy	10.48	3,400
• Pavement Replacement	500	sy	45.06	22,500
<b>Subtotal Water Quality Pond #4</b>				<b>185,150</b>
<b>6. Water Quality Pond #5</b>				
<b>a. Land Acquisition</b>				
• Fee	2	ac	10,075.00	15,100
• Acquisition Allowance	1	ls	25%	3,775
<b>b. Pond Construction</b>				
• Excavate and Load Into Trucks	8,390	cy	1.78	14,900
• Haul and Dump Excess Material	8,390	cy	1.15	9,700
• Spread, Compact, and Shape Excess Material	8,390	cy	1.47	12,300
• Construct Perimeter Road	156	tn	15.19	2,400
<b>c. 54" Diameter Siphon Pipeline</b>				
• Excavate and Load Into Trucks	500	cy	1.78	900
• 54" Diameter Pipe	200	lf	314.34	62,900
• Spread, Compact, and Shape Excess Material	100	cy	1.47	100
• Reinforced Concrete Inlet and Outlet	30	cy	592.01	17,800
<b>Subtotal Water Quality Pond #5</b>				<b>139,875</b>
<b>7. Open Channel Connecting Ponds 1 and 2</b>				
<b>a. Land Acquisition</b>				
• Fee	2	ac	10,075.00	24,400
• Acquisition Allowance	1	ls	25%	6,100
<b>b. Channel Construction</b>				
• Excavate and Load Into Trucks	20,500	cy	1.78	36,500
• Haul and Dump Excess Material	20,500	cy	1.15	23,600
• Spread, Compact, and Shape Excess Material	20,500	cy	1.47	30,100
• Construct Patrol/Access Roadways	828	tn	15.19	12,600
<b>d. Road Crossing (Five 6'x10' Box Culverts)</b>				
• Excavate and Load Into Trucks	1,450	cy	1.78	2,600
• Haul and Dump Excess Material	800	cy	1.15	900
• Spread, Compact, and Shape Excess Material	800	cy	1.47	1,200
• Reinforced Concrete Structure	244	cy	592.01	144,400
• Structural Backfill	640	cy	10.48	6,700
• Pavement Replacement	500	sy	45.06	22,500
<b>Subtotal Open Channel Connecting Ponds 1 and 2</b>				<b>311,600</b>
<b>8. Winters North Drain/Relocated Willow Canal</b>				
<b>a. Land Acquisition</b>				
• Fee	27	ac	10,075.00	267,000
• Acquisition Allowance	1	ls	25%	66,750
<b>b. Channel Construction</b>				
• Excavate and Load Into Trucks	92,614	cy	1.78	165,000
• Haul and Dump Excess Material	92,614	cy	1.15	106,700
• Spread, Compact, and Shape Excess Material	45,935	cy	1.47	67,400
• Construct Patrol/Access Roadways	3,360	tn	15.19	51,000
• Fencing (Willow Canal Only)	3,500	lf	13.62	47,700
• Concrete Lining (Willow Canal Only)	2,550	lf	36.67	93,500
• Willow Canal Extension (54" Pipeline Under Proposed Roadway)	800	lf	314.34	251,500

**CITY OF WINTERS  
DRAINAGE REPORT - MOODY SLOUGH SUBBASIN**

**OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS**

Sheet 4 of 5

Description	Quantity	Units	Unit Cost, \$	Total Cost, \$
<b>c. Pipeline Construction</b>				
- Excavate and Load Into Trucks	4,282	cy	1.78	7,600
- Haul and Dump Excess Material	4,282	cy	1.15	4,900
- Spread, Compact, and Shape Excess Material	2,265	cy	1.47	3,300
- Willow Canal 54" Pipeline	2,580	lf	314.34	811,000
- Manholes - 72" Diameter	3	ea	2,923.36	8,800
<b>d. County Road 89 Crossing (Four 8'x6' Box Culverts)</b>				
- Excavate and Load Into Trucks	1,090	cy	1.78	1,900
- Haul and Dump Excess Material	450	cy	1.15	500
- Spread, Compact, and Shape Excess Material	450	cy	1.47	700
- Reinforced Concrete Structure	244	cy	592.01	144,400
- Structural Backfill	640	cy	10.48	6,700
- Pavement Replacement	267	sy	45.06	12,000
- Traffic Control	1	ls	20,956.00	21,000
<b>e. Levee Improvements</b>				
<b>(1) Clear and Grub for Base</b>				
- Stripping and Vegetation (6")	21,860	cy	0.84	18,300
- Subexcavation and Recomaction (Inspection Trench)	21,500	cy	2.83	60,800
<b>(2) Fill for New Embankment</b>				
- Haul and Dump On-Site Dry Material	0	cy	1.15	0
- Compact and Shape On-Site Fill Material	46,679	cy	6.00	280,300
<b>f. Siphon/Spill Structure (WC Under Winters North Drain Near CR 89)</b>				
- Excavate and Load Into Trucks	500	cy	1.78	900
- 54" Diameter Pipe	156	lf	314.34	49,000
- Spread, Compact, and Shape Excess Material	500	cy	1.47	700
- Reinforced Concrete Inlet and Outlet	50	cy	592.01	29,600
- 54" Slide Gate	1	ls	10,478.00	10,500
<b>g. Siphon Structure (WC Pond #1 inlet box structure)</b>				
- Excavate and Load Into Trucks	1,011	cy	1.78	1,800
- 54" Diameter Pipe	150	lf	314.34	47,200
- Spread, Compact, and Shape Excess Material	109	cy	1.47	200
- Reinforced Concrete Inlet and Outlet	50	cy	592.01	29,600
<b>h. Siphon Structure (Under Proposed Roadway)</b>				
- Excavate and Load Into Trucks	500	cy	1.78	900
- 54" Diameter Pipe	120	lf	314.34	37,700
- Spread, Compact, and Shape Excess Material	500	cy	1.47	700
- Reinforced Concrete Inlet and Outlet	30	cy	592.01	17,800
<b>Subtotal Winters North Drain/Relocated Willow Canal</b>				<b>2,725,350</b>
<b>9. Winters North Drain Ultimate Levee</b>				
<b>a. Land Acquisition</b>				
- Fee	2	ac	10,075.00	22,200
- Acquisition Allowance	1	ls	25%	5,550
<b>b. Flood Barrier at Frontage Road</b>				
- Reinforced Concrete Structure	35	cy	592.01	20,700
- Structural Backfill	16	cy	10.48	200
- Pavement Replacement	100	sy	45.06	4,500
<b>c. Levee Improvements</b>				
<b>(1) Clear and Grub for Base</b>				
- Stripping and Vegetation (6")	741	cy	0.84	600
- Subexcavation and Recomaction (Inspection Trench)	1,972	cy	2.83	5,600
<b>(2) Fill for New Embankment</b>				
- Haul and Dump On-Site Dry Material	6,195	cy	1.15	7,100
- Compact and Shape On-Site Fill Material	6,195	cy	6.00	37,200
<b>Subtotal Winters North Drain Ultimate Levee</b>				<b>103,650</b>

**CITY OF WINTERS  
DRAINAGE REPORT - MOODY SLOUGH SUBBASIN**

**OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS**

Sheet 5 of 5

Description	Quantity	Unit	Unit Cost, \$	Total Cost, \$
<b>10. I-505 Floodwall</b>				
a. Land Acquisition				
• Fee	2	ac	10,075.00	16,100
• Acquisition Allowance	1	ls	25%	4,025
b. Pond Construction				
• Excavate and Load Into Trucks	7,845	cy	1.78	14,000
• Haul and Dump Excess Material	1,162	cy	1.15	1,300
• Spread, Compact, and Shape Excess Material	1,162	cy	1.47	1,700
• Structural Backfill	6,683	cy	10.48	70,000
• Reinforced Concrete Wall	895	cy	592.01	529,800
<b>Subtotal I-505 Floodwall</b>				<b>636,925</b>
<b>Subtotal Ultimate Drainage Improvements (Includes Land Acquisition)</b>				<b>12,900,350</b>
<b>Land Acquisition Costs<sup>3</sup></b>				<b>1,486,625</b>
<b>Subtotal Ultimate Drainage Improvements (Does Not Include Land Acquisition)</b>				<b>11,413,725</b>
Contingencies (25%)				2,853,431
Administration and Engineering (35%)				3,994,804
<b>TOTAL ULTIMATE FACILITIES COST (Includes Land Acquisition Costs)</b>				<b>19,748,585</b>

<sup>1</sup>Unit costs are based upon 2004 price levels.

<sup>2</sup>Putah Creek Diversion Improvements are shared by land outside of the Moody Slough subbasin. Refer to the report prepared by Wood Rodgers, Inc., entitled, "Moody Slough and Putah Creek / Dry Creek Subbasins Storm Drainage Cost Allocation Report," dated August 2005, for cost-sharing details.

<sup>3</sup>Land acquisition cost does not include runoff corridor acquisition. It is assumed either existing rights-of-way or easements are in place or that land will be dedicated.

CITY OF WINTERS  
DRAINAGE REPORT - PUTAH CREEK / DRY CREEK SUBBASINS

OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS

Sheet 1 of 2

Description	Quantity	Unit	Unit Cost, \$	Total Cost, \$
<b>1. Rancho Arroyo Detention/Water Quality Pond Improvement Costs</b>				
a. Pump Station (Includes Back-up Pumps)	5	cfs	20,150.00	90,675
b. 48" Diameter RCP Trunk Pipe to Rancho Arroyo Detention/Water Quality Pond	1,515	lf	180.22	273,000
Manholes				
• 72" Diameter	3	ea	2,923.36	8,800
<b>Subtotal Rancho Arroyo Detention/Water Quality Pond Improvements</b>				<b>372,475</b>
<b>2. Putah Creek Detention/Water Quality Pond No. 1</b>				
a. Land Acquisition				
• Fee	1	ac	10,075.00	9,400
• Acquisition Allowance	1	ls	25%	2,350
b. Pond Construction				
• Excavate and Load Into Trucks	5,347	cy	1.78	9,500
• Haul and Dump Excess Material	5,347	cy	1.15	6,200
• Spread, Compact, and Shape Excess Material	5,347	cy	1.47	7,800
• Construct Perimeter Road	343	tn	15.19	5,200
c. Outlet Control Weir Structure				
• Excavate and Load Into Trucks	39	cy	1.78	100
• Haul and Dump Excess Material	39	cy	1.15	0
• Spread, Compact, and Shape Excess Material	39	cy	1.47	100
• Riprap - Weir Construction	35	tn	41.91	1,500
• Grout - Weir Construction	4	cy	366.73	1,400
<b>Subtotal Northeast Detention/Water Quality Pond Improvements</b>				<b>43,550</b>
<b>3. Putah Creek Detention/Water Quality Pond No. 2</b>				
a. Land Acquisition				
• Fee	2	ac	10,075.00	18,700
• Acquisition Allowance	1	ls	25%	4,675
b. Pond Construction				
• Excavate and Load Into Trucks	17,671	cy	1.78	31,500
• Haul and Dump Excess Material	17,671	cy	1.15	20,400
• Spread, Compact, and Shape Excess Material	17,671	cy	1.47	25,900
• Construct Perimeter Road	516	tn	15.19	7,800
c. 36" Diameter RCP Trunk Pipes	1,321	lf	121.54	160,600
Manholes				
• 60" Diameter	4	ea	2,923.36	11,700
d. Outlet Structure at Pond From 36" Trunk Pipes	2	ea	5,239.00	10,500
e. Outlet Control Weir Structure			0.00	
• Excavate and Load Into Trucks	111	cy	1.78	200
• Haul and Dump Excess Material	111	cy	1.15	100
• Spread, Compact, and Shape Excess Material	111	cy	1.47	200
• Riprap - Weir Construction	83	tn	41.91	3,500
• Grout - Weir Construction	9	cy	366.73	3,300
f. 48" Pipe Inlet Structure				
• Excavate and Load Into Trucks	41	cy	1.78	100
• Haul and Dump Excess Material	41	cy	1.15	0
• Spread, Compact, and Shape Excess Material	41	cy	1.47	100
• Reinforced Concrete Structure	1	ea	9,472.11	9,500
g. 48" Diameter RCP Outlet Pipe to Putah Creek Diversion	426	lf	180.22	76,800
Manholes				
• 72" Diameter	1	ea	2,923.36	2,900
<b>Subtotal Northwest Detention/Water Quality Pond Improvements</b>				<b>388,475</b>
<b>4. Grant Street Interceptor</b>				
a. Open Channel				
• Land Acquisition Fee	1	ac	10,075.00	12,400
• Acquisition Allowance	1	ls	25%	3,100
b. Channel Construction				
• Excavate and Load Into Trucks	1,700	cy	1.78	3,000
• Haul and Dump Excess Material	1,700	cy	1.15	2,000
• Spread, Compact, and Shape Excess Material	1,700	cy	1.47	2,500
• Construct Patrol/Access Roadways	766	tn	15.19	11,600
c. 60" Diameter RCP	2,269	lf	249.38	565,800
Manholes				
• Saddle	8	ea	5,857.20	46,900

**CITY OF WINTERS  
DRAINAGE REPORT - PUTAH CREEK / DRY CREEK SUBBASINS**

**OPINION OF PROBABLE COSTS<sup>1</sup>  
ULTIMATE CONDITIONS**

Sheet 2 of 2

Description	Quantity	Unit	Unit Cost, \$	Total Cost, \$
d. Construction of Inlet Structure at 60" Pipe	1	ea	8,749.13	8,700
e. Outlet Structure at Putah Creek Diversion	1	ea	5,239.00	5,200
<b>Subtotal Grant Street Interceptor</b>				<b>661,200</b>
<b>5. Putah Creek Detention/Water Quality Pond No. 3</b>				
a. Land Acquisition				
• Fee	3	ac	10,075.00	29,000
• Acquisition Allowance	1	ls	25%	7,250
b. Pond Construction				
• Excavate and Load Into Trucks	43,761	cy	1.78	77,900
• Haul and Dump Excess Material	43,761	cy	1.15	50,400
• Spread, Compact, and Shape Excess Material	43,761	cy	1.47	64,200
• Construct Perimeter Road	382	tn	15.19	8,800
c. Storm Drain Pipes				
36" Diameter RCP Trunk Pipes	795	lf	121.54	96,600
66" Diameter RCP	1,858	lf	288.15	535,400
Manholes				
• 60" Diameter	6	ea	2,923.36	17,500
• Saddle	3	ea	5,857.20	17,600
d. Outlet Structure at Pond From Trunk Pipes	2	ea	5,239.00	10,500
e. Outlet Control Weir Structure				
• Excavate and Load Into Trucks	1,054	cy	1.78	1,900
• Haul and Dump Excess Material	1,054	cy	1.15	1,200
• Spread, Compact, and Shape Excess Material	1,054	cy	1.47	1,500
• Riprap - Weir Construction	385	tn	41.91	16,100
• Grout - Weir Construction	42	cy	366.73	15,400
f. 66" Pipe Inlet Structure				
• Excavate and Load Into Trucks	39	cy	1.78	100
• Haul and Dump Excess Material	39	cy	1.15	0
• Spread, Compact, and Shape Excess Material	39	cy	1.47	100
• Reinforced Concrete Structure	1	ea	10,373.22	10,400
<b>Subtotal Southwest Detention/Water Quality Pond Improvements</b>				<b>961,850</b>
<b>6. Putah Creek Detention/Water Quality Pond No. 4</b>				
a. Land Acquisition				
• Fee	2	ac	10,075.00	18,700
• Acquisition Allowance	1	ls	25%	4,675
b. Pond Construction				
• Excavate and Load Into Trucks	21,147	cy	1.78	37,700
• Haul and Dump Excess Material	21,147	cy	1.15	24,400
• Spread, Compact, and Shape Excess Material	21,147	cy	1.47	31,000
• Construct Perimeter Road	421	tn	15.19	6,400
c. Outlet Control Weir Structure				
• Excavate and Load Into Trucks	205	cy	1.78	400
• Haul and Dump Excess Material	205	cy	1.15	200
• Spread, Compact, and Shape Excess Material	205	cy	1.47	300
• Riprap - Weir Construction	76	tn	41.91	3,200
• Grout - Weir Construction	8	cy	366.73	3,000
<b>Subtotal Southeast Detention/Water Quality Pond Improvements</b>				<b>129,975</b>
<b>Subtotal Ultimate Facilities (Includes Land Acquisition Costs)</b>				<b>2,557,625</b>
Land Acquisition Costs				109,500
<b>Subtotal Ultimate Facilities (Does Not Include Land Acquisition Costs)</b>				<b>2,448,025</b>
Construction Contingencies (25%)				612,006
Administration and Engineering (35%)				856,809
<b>TOTAL ULTIMATE FACILITIES COST (Includes Land Acquisition Costs)</b>				<b>4,026,340</b>

<sup>1</sup>Unit costs are based upon 2004 price levels.

<sup>2</sup>Putah Creek diversion improvements, totaling \$2,775,410, are shared by land in the Moody Slough subbasin. Refer to the report prepared by Wood Rodgers, Inc., entitled, "Moody Slough and Putah Creek / Dry Creek Subbasins Storm Drainage Cost Allocation Report," dated August 2005, for cost-sharing details.



Economic &  
Planning Systems

*Public Finance*  
*Real Estate Economics*  
*Regional Economics*  
*Land Use Policy*

## DRAFT REPORT

# FLOOD AREA STORM DRAINAGE DEVELOPMENT IMPACT FEE NEXUS STUDY

Prepared for:

City of Winters

Prepared by:

Economic & Planning Systems, Inc.

November 4, 2005

EPS #15493

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### Flood Area Storm Drainage Development Impact Fee Nexus Study November 4, 2005

This nexus study was prepared by Economic & Planning Systems, Inc., (EPS) a firm specializing in real estate economics, regional economics, public finance, and land use policy. The report (EPS Project #15493) was commissioned by the City of Winters.

Tim R. Youmans served as principal-in-charge and oversaw all aspects of the assignment. Allison Shaffer served as project manager and conducted the nexus study.

The analyses, opinions, recommendations, and conclusions of this report are EPS's informed judgment based on market and economic conditions as of the date of this report. Changes in the market conditions or the economy could change or invalidate the conclusions contained herein. The contents of this report are based, in part, on data from secondary sources. While it is believed that these sources are accurate, EPS cannot guarantee their accuracy. The findings herein are based on economic considerations and, therefore, should not be construed as a representation or as an opinion that government approvals for development can be secured. Conclusions and recommended actions contained in this report should not be relied on as sole input for final business decisions regarding current and future development and planning, nor utilized for purposes beyond the scope and objectives of the current study.

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# I. EXECUTIVE SUMMARY

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## BACKGROUND

Much of the City of Winters (City) is located in an area referred to in this report as the "flood area" of the City. The flood area consists of the flood overlay area from the City's General Plan plus some additional areas later determined through the City-wide *Storm Drainage Master Plan Study* to be in the floodplain and to have a need for storm drainage flood facilities. Development may not occur in the flood area until a comprehensive solution to its flooding problem has been identified and development impact fees established to fund the necessary storm drainage facilities. There are eight different storm drainage zones in the flood area, each with different requirements for storm drainage facilities.

The *Moody Slough Sub-basin Drainage Report* and the *Putah Creek/Dry Creek Sub-basins Drainage Report*, prepared by Wood Rodgers, Inc., identify a comprehensive flood solution, including the storm drainage facility requirements and estimated costs of the facilities needed to serve new development in the flood area. In addition, the *Draft Storm Drainage Cost Allocation Report* prepared by Wood Rodgers, Inc. contains a cost allocation of the needed facilities to the different flood area zones based on each zone's facility requirements through buildout of the City's General Plan.

## PURPOSE

The purpose of this study is to adopt a storm drainage development impact fee (Flood Area Storm Drainage Fee or fee) to be assessed on all new development in the eight zones of the flood area and to establish the nexus between projected new development in this area through buildout of the City's General Plan and the storm drainage facilities required to serve this development. This nexus will serve as the basis for requiring development impact fees under AB 1600 legislation, as codified by California Government Section 66000 et seq. This code section sets forth the procedural requirements for establishing and collecting development impact fees. These procedures require that "a reasonable relationship, or nexus, must exist between a governmental exaction and the purpose of the condition." Specifically, each local agency imposing a fee must:

- Identify the purpose of the fee;
- Identify how the fee will be used;
- Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed;

- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed; and
- Demonstrate a reasonable relationship between the amount of the fee and the cost of public facility or portion of the public facility attributable to the development on which the fee is imposed.

The development fees to be collected for each land use in a zone are calculated based on the proportionate share of the zone's total facility use that each land use represents.

## **SUMMARY OF FINDINGS**

To solve the flooding problem in the flood area, the City will need to construct additional storm drainage facilities to serve new development through buildout of the General Plan. Using the flood area facilities requirements, facilities costs, and cost allocation to flood area zones presented in the Wood Rodgers, Inc. reports discussed previously, Economic & Planning Systems, Inc., (EPS) calculated the Flood Area Storm Drainage Fees by flood area zone needed to fund the facilities. These fees are shown in **Table 1**.

## **ORGANIZATION OF REPORT**

The report is divided into five chapters, including this Executive Summary, as follows:

- **Chapter II** describes the future development and storm drainage facility needs for the flood area.
- **Chapter III** provides the cost allocation and fee calculation methodology used to establish the Flood Area Storm Drainage Fees.
- **Chapter IV** provides the nexus findings required to establish the fees.
- **Chapter V** describes the implementation of the fee program and reporting requirements.

# DRAFT

**Table 1**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Summary**

Land Use	Flood Area Storm Drainage Fee per Net Acre							
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a	Zone 5b	Zone 6
Rural Residential	\$ 48,855	\$ 65,294	\$ 56,431	\$ 31,812	\$ 33,442	\$ 48,194	\$ 29,210	\$ 41,283
Low-Density Residential	\$ 51,562	\$ 68,912	\$ 59,558	\$ 33,575	\$ 35,295	\$ 50,865	\$ 30,829	\$ 43,571
Medium-Density Residential	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Medium/High-Density Residential	\$ 60,191	\$ 80,445	\$ 69,525	\$ 39,193	\$ 41,202	\$ 59,377	\$ 35,988	\$ 50,862
High-Density Residential	\$ 60,616	\$ 81,013	\$ 70,016	\$ 39,470	\$ 41,493	\$ 59,796	\$ 36,242	\$ 51,221
Neighborhood Commercial	\$ 65,874	\$ 88,041	\$ 76,090	\$ 42,894	\$ 45,093	\$ 64,984	\$ 39,386	\$ 55,665
Highway Service Commercial	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Office	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Planned Commercial	\$ 63,803	\$ 85,273	\$ 73,698	\$ 41,546	\$ 43,675	\$ 62,941	\$ 38,148	\$ 53,915
Light Industrial	\$ 60,387	\$ 80,707	\$ 69,752	\$ 39,321	\$ 41,336	\$ 59,570	\$ 36,105	\$ 51,028
Heavy Industrial	\$ 58,485	\$ 78,164	\$ 67,554	\$ 38,083	\$ 40,034	\$ 57,694	\$ 34,968	\$ 49,420
Business/Industrial Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Commercial/Business Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Public/Quasi-Public (Schools)	\$ 48,342	\$ 64,609	\$ 55,839	\$ 31,478	\$ 33,091	\$ 47,688	\$ 28,904	\$ 40,850

fee summary

## II. FUTURE DEVELOPMENT AND FACILITY NEEDS

---

This chapter describes the amount of growth projected to occur in the flood area of the City and the storm drainage facilities needed to serve this new development and prevent flooding.

### LAND USE

There are eight storm drainage zones in the flood area of the City. Wood Rodgers, Inc. estimated the remaining development by storm drainage zone and land use through buildout (2010) of the City's General Plan, as detailed in the **Storm Drainage Cost Allocation Report**. These development estimates are consistent with the land uses specified in the General Plan. **Map 1** shows the General Plan land uses by storm drainage zone.

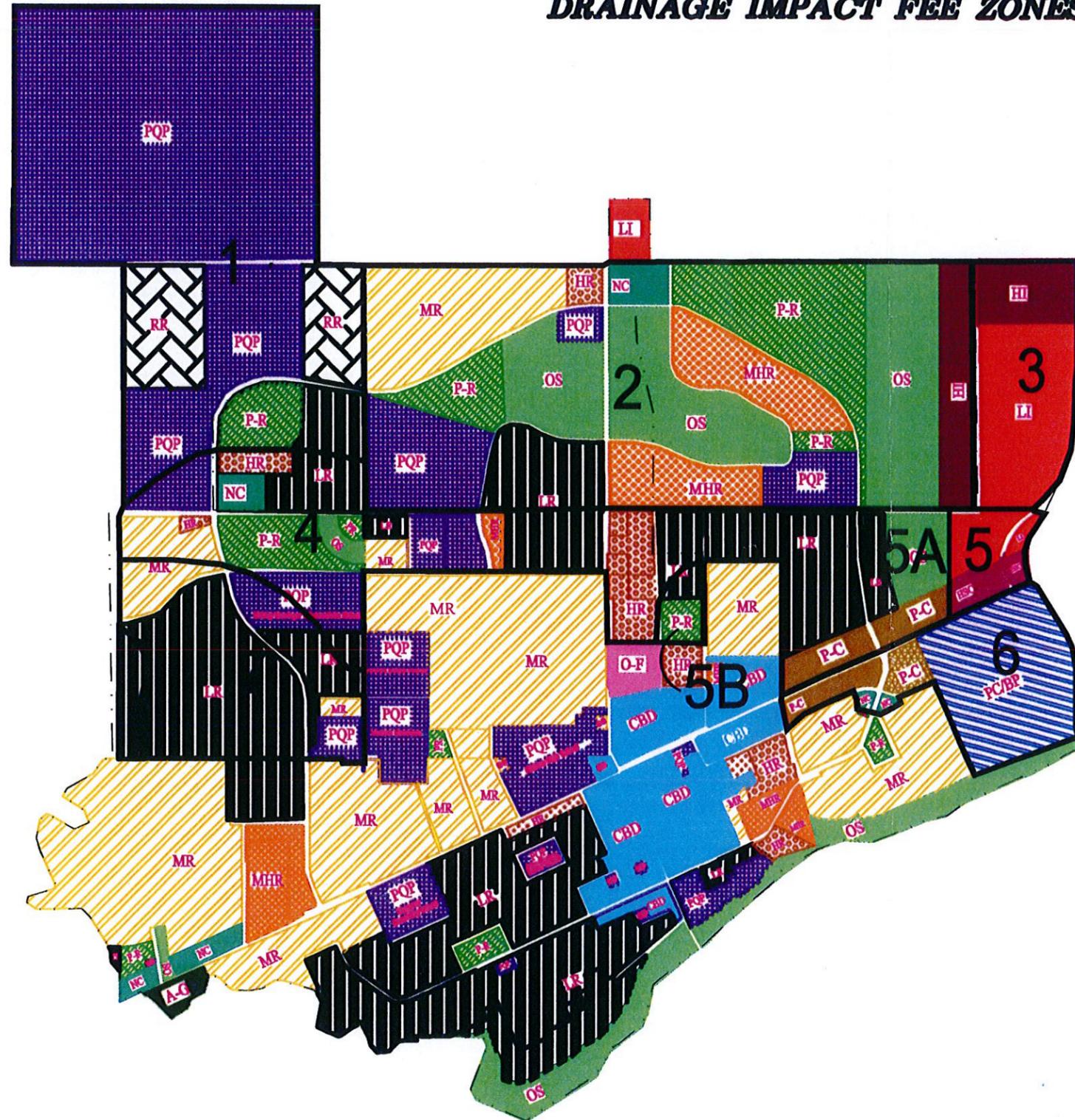
For the purposes of establishing the Flood Area Storm Drainage fees, EPS made several adjustments to the Wood Rodgers, Inc. development projections. The adjusted development projections are summarized in **Table 2**. The adjustments are as follows.

1. Development projections for land uses that are exempted from paying development impact fees are excluded from **Table 2**. These exempt land uses include all Public/Quasi-Public development except schools, Recreation/Parks, and Open Space.
2. The Central Business District land is excluded since this land use is restricted to the downtown area of the City, which is not contained in any of the flood area zones and thus will not pay the Flood Area Storm Drainage fee.
3. EPS assumed that not all of the remaining nonresidential development would occur within the General Plan timeframe. Specifically, EPS assumed that only 75 percent of the Planned Commercial, Light Industrial, Business/Industrial Park, and Commercial/Business Park projected development would occur within the General Plan timeframe.

Overall, EPS projects that 479 acres in the flood area will develop within the General Plan timeframe and will participate in the Flood Area Storm Drainage fee program. These development projections will be re-evaluated and revised as part of any future fee updates.

# CITY OF WINTERS

## DRAINAGE IMPACT FEE ZONES



### GENERAL PLAN LAND USE DIAGRAM

- AGRICULTURE (AG)
  - RURAL RESIDENTIAL (RR)
  - LOW-DENSITY RESIDENTIAL (LR)
  - MEDIUM-DENSITY RESIDENTIAL (MR)
  - MEDIUM/HIGH DENSITY (MHR)
  - HIGH-DENSITY RESIDENTIAL (HR)
  - NEIGHBORHOOD COMMERCIAL (NC)
  - CENTRAL BUSINESS DISTRICT (CBD)
  - HIGHWAY SERVICE COMMERCIAL (HSC)
  - OFFICE (OF)
  - PLANNED COMMERCIAL (PC)
  - PLANNED COMMERCIAL BUSINESS PARK (PC/BP)
  - LIGHT INDUSTRIAL (LI)
  - HEAVY INDUSTRIAL (HI)
  - PUBLIC/QUASI-PUBLIC (PQP)
  - PARKS AND RECREATION (PR)
  - OPEN SPACE (OS)
- URBAN LIMIT LINE  
 CITY LIMITS



# DRAFT

**Table 2**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Projected Buildout Development**

Land Use	Percent to Develop	Projected Non-Exempt Development (Gross Acres)										Total		
		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a	Zone 5b	Zone 6	development				
Rural Residential	100%	46.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.71
Low-Density Residential	100%	12.38	22.87	0.00	49.49	0.00	0.00	0.00	31.67	2.35	0.00	0.00	0.00	118.76
Medium-Density Residential	100%	0.00	47.20	0.00	13.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.86
Medium/High-Density Residential	100%	0.00	43.89	0.00	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.95
High-Density Residential	100%	0.00	3.61	0.00	21.19	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	24.80
Neighborhood Commercial	100%	0.00	6.30	0.00	4.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.15
Highway Service Commercial	100%	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34
Office	100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planned Commercial [1]	75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.44	0.00	0.00	0.00	7.56	18.00
Light Industrial [1]	75%	0.00	0.00	0.00	0.00	29.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.71
Heavy Industrial	100%	0.00	20.25	8.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.56
Business/Industrial Park [1]	75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business Park [1]	75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.04	40.04
Public/Quasi-Public (Schools)	100%	0.00	43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.50
<b>Total</b>		<b>59.09</b>	<b>187.62</b>	<b>37.86</b>	<b>90.81</b>	<b>10.50</b>	<b>42.11</b>	<b>2.35</b>	<b>49.04</b>	<b>479.37</b>				

Source: Wood Rodgers, Inc. and EPS  
 [1] EPS estimates that only 75% of buildout development actually will occur within the General Plan timeframe (by 2010) for the indicated land uses. Development projections will be reviewed and possibly revised as part of any future fee updates.

## **FACILITY NEEDS AND ESTIMATED COSTS**

Wood Rodgers, Inc. determined the storm drainage facilities needed by new development in the flood area to address flooding problems and estimated the costs of these facilities. They then allocated the cost of each facility to the different storm drainage zones by first determining which zones would use the facility, then allocating the total costs to these zones based on the relative amount of facility usage for each zone as measured by runoff coefficients.

The facility requirements, facility cost estimates, and cost allocation to zones are detailed in the **Storm Drainage Cost Allocation Report** and summarized in **Table 3**. In total, an estimated \$23.5 million of storm drainage facilities are needed to serve new development in the flood area.

**DRAFT**

**Table 3**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Facility Costs by Zone**

Facility	Benefiting Zones	Total Cost	Total Facility Cost By Zone						Zone 5b	Zone 6
			Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a		
Putah Creek Diversion Channel	All	\$ 2,775,410	\$ 272,348	\$ 1,063,701	\$ 267,211	\$ 475,369	\$ 73,029	\$ 235,116	\$ 11,300	\$ 377,334
Detention/Water Quality Pond #1	1, 2, 4	\$ 4,476,810	\$ 672,439	\$ 2,623,620	\$ 0	\$ 1,180,751	\$ 0	\$ 0	\$ 0	\$ 0
Open Channel Connecting Ponds 1 & 2	1, 2, 4	\$ 480,260	\$ 72,137	\$ 281,455	\$ 0	\$ 126,668	\$ 0	\$ 0	\$ 0	\$ 0
Detention/Water Quality Pond #2	1, 2, 4	\$ 3,414,745	\$ 512,912	\$ 2,001,200	\$ 0	\$ 900,633	\$ 0	\$ 0	\$ 0	\$ 0
Detention/Water Quality Pond #3	1, 2	\$ 2,795,790	\$ 571,672	\$ 2,224,118	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Water Quality Pond #4	1	\$ 276,590	\$ 276,590	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Water Quality Pond #5	3	\$ 212,475	\$ 0	\$ 0	\$ 212,475	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Winters North Drain	2, 3	\$ 4,160,310	\$ 0	\$ 3,327,147	\$ 833,163	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Winters North Drain Ultimate Levee	2, 3	\$ 149,190	\$ 0	\$ 119,313	\$ 29,877	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
I-505 Floodwall	3, 5	\$ 1,007,005	\$ 0	\$ 0	\$ 790,215	\$ 0	\$ 216,790	\$ 0	\$ 0	\$ 0
Grant Street Interceptor	5A, 5B	\$ 1,048,620	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,001,457	\$ 47,163	\$ 0
Area 5 On-Site	5	\$ 62,630	\$ 0	\$ 0	\$ 0	\$ 0	\$ 62,630	\$ 0	\$ 0	\$ 0
Area 5A On-Site	5A	\$ 607,535	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 607,535	\$ 0	\$ 0
Area 6 Facilities	6	\$ 1,711,145	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,711,145
Drainage Report	All	\$ 150,000	\$ 14,719	\$ 57,489	\$ 14,442	\$ 25,692	\$ 3,947	\$ 12,707	\$ 611	\$ 20,393
Future Drainage Report Update	All	\$ 175,000	\$ 17,173	\$ 67,070	\$ 16,849	\$ 29,974	\$ 4,605	\$ 14,825	\$ 713	\$ 23,792
<b>Total Cost</b>		<b>\$ 23,503,515</b>	<b>\$ 2,409,991</b>	<b>\$ 11,765,113</b>	<b>\$ 2,164,232</b>	<b>\$ 2,739,087</b>	<b>\$ 361,001</b>	<b>\$ 1,871,640</b>	<b>\$ 59,787</b>	<b>\$ 2,132,665</b>

fac costs

Source: Wood Rodgers, Inc.

Prepared by EPS

15493 model2.xls 11/3/2005

### III. COST ALLOCATION AND FEE CALCULATIONS

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This chapter describes the cost allocation methodology and uses the cost allocation to calculate the proposed Flood Area Storm Drainage Fees by storm drainage zone. The following steps describe the methodology used to calculate the fees.

1. For each storm drainage zone in the flood area, project development by land use through buildout of the City's General Plan. The development projections are detailed in the previous chapter.
2. Estimate the costs of the storm drainage facilities needed by new development in the flood area to address flooding problems. Allocate the costs of these facilities to the eight storm drainage zones. The costs by zone are detailed in the previous chapter.
3. For each zone, allocate the facility costs to the land uses and determine a facility cost per net acre for each land use. The methodology to perform this cost allocation is discussed in this chapter.
4. For each zone, calculate the fees by land use based on the cost per net acre from the previous step and an additional cost for the fee program administration to be included in each land use's fee. The methodology of calculating the proposed fees is discussed in this chapter.

#### COST ALLOCATION

The allocation of costs to the land uses will serve as the basis for establishing the proposed fees. The costs must be allocated equitably so that the cost for each land use represents the relative facility usage attributed to that land use. Runoff coefficients are estimates of the percentage of precipitation that will result in runoff, and thus are a good measure of relative storm drainage facility usage that will be required by each land use. Consequently, runoff coefficients are used to allocate the costs to the land uses. The following steps describe the cost allocation process.

1. Estimate average runoff coefficients for each land use. Wood Rodgers, Inc. estimated runoff coefficients by land use for three different soil types. These runoff coefficients are detailed in the **Storm Drainage Cost Allocation Report**. EPS created average runoff coefficients by land use that are weighted averages of the runoff coefficients by soil type. **Table 4** shows the calculation of the average run-off coefficients. Since there is no new development projected for the Office and Business/Industrial Park land uses, average runoff coefficients for these land uses are set equal to the average runoff coefficient for the Commercial/Business Park land use.

# DRAFT

**Table 4**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Average Runoff Coefficients**

Non-exempt Land Uses	Soil Type B			Soil Type C			Soil Type D			Total	
	Acres	Percent of Total	Run-off Coefficient	Acres	Percent of Total	Run-off Coefficient	Acres	Percent of Total	Run-off Coefficient	Acres	Average Run-off Coefficient
Rural Residential	13.50	29%	0.52	0.00	0%	0.65	33.21	71%	0.72	46.71	0.66
Low-Density Residential	20.08	17%	0.58	52.04	44%	0.69	46.64	39%	0.76	118.76	0.70
Medium-Density Residential	0.00	0%	0.72	0.00	0%	0.81	60.86	100%	0.84	60.86	0.84
Medium/High-Density Residential	2.26	5%	0.72	27.95	61%	0.81	15.74	34%	0.84	45.95	0.82
High-Density Residential	0.00	0%	0.72	15.20	61%	0.81	9.60	39%	0.84	24.80	0.82
Neighborhood Commercial	1.44	12%	0.84	0.00	0%	0.88	10.71	88%	0.90	12.15	0.89
Highway Service Commercial	3.34	100%	0.84	0.00	0%	0.88	0.00	0%	0.90	3.34	0.84
Office [1]	0.00	0%	0.84	0.00	0%	0.88	0.00	0%	0.90	0.00	0.84
Planned Commercial	9.11	38%	0.84	14.89	62%	0.88	0.00	0%	0.90	24.00	0.86
Light Industrial	1.46	3%	0.77	47.48	97%	0.82	0.00	0%	0.86	48.94	0.82
Heavy Industrial	15.58	55%	0.77	12.98	45%	0.82	0.00	0%	0.86	28.56	0.79
Business/Industrial Park [1]	0.00	0%	0.84	0.00	0%	0.88	0.00	0%	0.90	0.00	0.84
Commercial/Business Park	53.38	100%	0.84	0.00	0%	0.88	0.00	0%	0.90	53.38	0.84
Public/Quasi-Public (Schools) [2]	9.50	22%	0.58	3.17	7%	0.64	30.83	71%	0.68	43.50	0.66
<b>TOTAL</b>	<b>129.65</b>			<b>173.71</b>			<b>207.59</b>			<b>510.95</b>	

*runoff avg*

Source: Wood Rodgers, Inc.

[1] There is no remaining development for these land uses in the flood area zones, so average runoff coefficients were estimated as equal to the average runoff coefficient for the Commercial/Business Park land use.

[2] Only schools are included in the Public/Quasi-Public acres. All other Public/Quasi-Public acres are exempt from the fee program. The runoff coefficients shown are for City of Woodland schools (calculated by Wood Rodgers, Inc.). The runoff coefficients for Winters Public/Quasi-Public land uses are averages for all Public/Quasi-Public land uses, and thus are not accurate to use for schools, which have more impervious area and lower runoff coefficients than other Public/Quasi-Public uses.

2. In each zone, calculate total runoff acres by land use. Runoff acres are calculated as the projected acres of new development multiplied by the run-off coefficient. These runoff acres represent the relative amount of storm drainage facility usage for each land use. **Table 5** details the calculation of the runoff acres.
3. For each zone, allocate the total facility costs to the land uses based on their percentages of total runoff acres. **Table 6** shows this cost allocation.
4. For each zone, estimate the facility cost per net acre by land use. Net acres are estimated as 85 percent of the projected gross acres. For each land use, the cost per net acre is calculated as the total cost allocated to the land use in the previous step divided by the net acres. **Table 6** shows this calculation.

## FEE CALCULATION

In each zone, the fees by land use are calculated differently depending on whether or not a particular land use has any projected development. **Table 7** shows the fee calculations.

### LAND USES WITH PROJECTED DEVELOPMENT

In each zone, fees for land uses with projected development are calculated using the facility cost allocations described previously. An administrative cost per net acre is added to the facility cost per net acre to calculate a total cost per net acre. The administrative cost is estimated as 3 percent of the facility cost and covers the cost of the fee program administration. The total cost per net acre serves as the proposed fee for the land use.

### LAND USES WITHOUT PROJECTED DEVELOPMENT

In each zone, there are land uses for which no future development is projected. Even though there is no projected development, it is possible that development may occur, and therefore fees must be established for these land uses. Fees are estimated based on the land use's runoff coefficient as compared to the runoff coefficient for a land use with projected development. For example, in Zone 1, the fee per acre of rural residential development is established as 95 percent of the fee per acre of low-density residential development because the rural residential runoff coefficient is 95 percent of the low-density residential runoff coefficient. Based on the runoff coefficients, rural residential development generates 95 percent of the runoff that low-density residential development generates, so it is reasonable to charge rural residential development a fee that is 95 percent of the fee for low-density development.

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**Table 5**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Runoff Acres by Storm Drainage Zone**

Non-Exempt Land Uses	Average Run-off Coefficient	Total		Zone 1		Zone 2		Zone 3		Zone 4	
		Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres
Rural Residential	0.66	46.71	30.93	46.71	30.93	0.00	0.00	0.00	0.00	0.00	0.00
Low-Density Residential	0.70	118.76	83.00	12.38	8.65	22.87	15.98	0.00	0.00	49.49	34.59
Medium-Density Residential	0.84	60.86	51.12	0.00	0.00	47.20	39.65	0.00	0.00	13.66	11.47
Medium/High-Density Residential	0.82	45.95	37.49	0.00	0.00	43.89	35.81	0.00	0.00	2.06	1.68
High-Density Residential	0.82	24.80	20.38	0.00	0.00	3.61	2.97	0.00	0.00	21.19	17.41
Neighborhood Commercial	0.89	12.15	10.85	0.00	0.00	6.30	5.63	0.00	0.00	4.41	3.94
Highway Service Commercial	0.84	3.34	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Office	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planned Commercial	0.86	24.00	20.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Industrial	0.82	48.94	40.06	0.00	0.00	0.00	0.00	29.55	24.19	0.00	0.00
Heavy Industrial	0.79	28.56	22.64	0.00	0.00	20.25	16.05	8.31	6.59	0.00	0.00
Business/Industrial Park	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business Park	0.84	53.38	44.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public/Quasi-Public (Schools)	0.66	43.50	28.50	0.00	0.00	43.50	28.50	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>510.95</b>	<b>393.37</b>	<b>59.09</b>	<b>39.58</b>	<b>187.62</b>	<b>144.59</b>	<b>37.86</b>	<b>30.77</b>	<b>90.81</b>	<b>69.09</b>

[1] Runoff acres = average runoff coefficient (pct of precipitation that becomes run-off) \* acres

# DRAFT

**Table 5  
City of Winters  
Flood Area Storm Drainage Fee Nexus Study  
Runoff Acres by Storm Drainage Zone**

Non-Exempt Land Uses	Average Run-off Coefficient	Zone 5		Zone 5a		Zone 5b		Zone 6	
		Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres
Rural Residential	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Low-Density Residential	0.70	0.00	0.00	31.67	22.13	2.35	1.64	0.00	0.00
Medium-Density Residential	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium/High-Density Residential	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High-Density Residential	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Commercial	0.89	0.00	0.00	0.00	0.00	0.00	0.00	1.44	1.29
Highway Service Commercial	0.84	3.34	2.81	0.00	0.00	0.00	0.00	0.00	0.00
Office	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planned Commercial	0.86	0.00	0.00	10.44	9.03	0.00	0.00	7.56	6.54
Light Industrial	0.82	7.16	5.86	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Industrial	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Business/Industrial Park	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business Park	0.84	0.00	0.00	0.00	0.00	0.00	0.00	40.04	33.63
Public/Quasi-Public (Schools)	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>10.50</b>	<b>8.66</b>	<b>42.11</b>	<b>31.16</b>	<b>2.35</b>	<b>1.64</b>	<b>49.04</b>	<b>41.45</b>

*alloc units by area*  
[1] Runoff acres = average runoff coefficient (pct of precipitation that becomes run-off) \* acres

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**Table 6**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Cost Allocation Detail**

Zone/ Land Use	Runoff Acres	Pct of Total Runoff Acres	Total Cost	Gross Acres	Net Acre Percent	Net Acres	Facility Cost per Net Acre
	a	b	c=zone total cost*b	d	e	f=d*e	g=c/f
<b>Zone 1</b>							
Rural Residential	30.93	78%	\$ 1,883,208	46.71	85%	39.70	\$ 47,432
Low-Density Residential	8.65	22%	\$ 526,783	12.38	85%	10.52	\$ 50,060
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>39.58</b>	<b>100%</b>	<b>\$ 2,409,991</b>	<b>59.09</b>		<b>50.23</b>	
<b>Zone 2</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	15.98	11%	\$ 1,300,603	22.87	85%	19.44	\$ 66,905
Medium-Density Residential	39.65	27%	\$ 3,226,190	47.20	85%	40.12	\$ 80,414
Medium/High-Density Residential	35.81	25%	\$ 2,913,698	43.89	85%	37.31	\$ 78,102
High-Density Residential	2.97	2%	\$ 241,348	3.61	85%	3.07	\$ 78,653
Neighborhood Commercial	5.63	4%	\$ 457,727	6.30	85%	5.36	\$ 85,477
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	16.05	11%	\$ 1,306,218	20.25	85%	17.21	\$ 75,888
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	28.50	20%	\$ 2,319,329	43.50	85%	36.98	\$ 62,727
<b>TOTAL</b>	<b>144.59</b>	<b>100%</b>	<b>\$ 11,765,113</b>	<b>144.12</b>		<b>122.50</b>	
<b>Zone 3</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	24.19	79%	\$ 1,700,959	29.55	85%	25.12	\$ 67,720
Heavy Industrial	6.59	21%	\$ 463,272	8.31	85%	7.06	\$ 65,587
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>30.77</b>	<b>100%</b>	<b>\$ 2,164,232</b>	<b>37.86</b>		<b>32.18</b>	

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**Table 6**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Cost Allocation Detail**

Zone/ Land Use	Runoff Acres	Pct of Total Runoff Acres	Total Cost	Gross Acres	Net Acre Percent	Net Acres	Facility Cost per Net Acre
	a	b	c=zone total cost*b	d	e	f=d*e	g=c/f
<b>Zone 4</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	34.59	50%	\$ 1,371,238	49.49	85%	42.07	\$ 32,597
Medium-Density Residential	11.47	17%	\$ 454,899	13.66	85%	11.61	\$ 39,178
Medium/High-Density Residential	1.68	2%	\$ 66,629	2.06	85%	1.75	\$ 38,052
High-Density Residential	17.41	25%	\$ 690,214	21.19	85%	18.01	\$ 38,321
Neighborhood Commercial	3.94	6%	\$ 156,107	4.41	85%	3.75	\$ 41,645
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>69.09</b>	<b>100%</b>	<b>\$ 2,739,087</b>	<b>90.81</b>		<b>77.19</b>	
<b>Zone 5</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	2.81	32%	\$ 116,927	3.34	85%	2.84	\$ 41,186
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	5.86	68%	\$ 244,074	7.16	85%	6.08	\$ 40,132
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>8.66</b>	<b>100%</b>	<b>\$ 361,001</b>	<b>10.50</b>		<b>8.92</b>	
<b>Zone 5a</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	22.13	71%	\$ 1,329,373	31.67	85%	26.92	\$ 49,383
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	9.03	29%	\$ 542,267	10.44	85%	8.87	\$ 61,107
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>31.16</b>	<b>100%</b>	<b>\$ 1,871,640</b>	<b>42.11</b>		<b>35.79</b>	

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**Table 6**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Cost Allocation Detail**

Zone/ Land Use	Runoff Acres	Pct of Total Runoff Acres	Total Cost	Gross Acres	Net Acre Percent	Net Acres	Facility Cost per Net Acre
	<i>a</i>	<i>b</i>	<i>c=zone total cost*b</i>	<i>d</i>	<i>e</i>	<i>f=d*e</i>	<i>g=c/f</i>
<b>Zone 5b</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	1.64	100%	\$ 59,787	2.35	85%	2.00	\$ 29,931
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>1.64</b>	<b>100%</b>	<b>\$ 59,787</b>	<b>2.35</b>		<b>2.00</b>	
<b>Zone 6</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	1.29	3%	\$ 66,149	1.44	85%	1.22	\$ 54,043
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	6.54	16%	\$ 336,365	7.56	85%	6.43	\$ 52,344
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	33.63	81%	\$ 1,730,151	40.04	85%	34.03	\$ 50,842
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>41.45</b>	<b>100%</b>	<b>\$ 2,132,665</b>	<b>49.04</b>		<b>7.65</b>	

cost alloc

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**Table 7**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Calculation Detail**

<b>Zone/ Land Use</b>	<b>Facility Cost per Net Acre</b>	<b>Admin. Cost per Net Acre</b>	<b>Total Cost per Net Acre</b>	<b>Runoff Coefficient</b>	<b>Relative Runoff Percent</b>	<b>Fee per Net Acre</b>
	<i>a</i>	<i>b=.03*a</i>	<i>a+b</i>			<i>[1]</i>
<b>Zone 1</b>						
Rural Residential	\$ 47,432	\$ 1,423	\$ 48,855	0.66	0.95	\$ 48,855
Low-Density Residential	\$ 50,060	\$ 1,502	\$ 51,562	<b>0.70</b>	<b>1.00</b>	\$ 51,562
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 60,191
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.18	\$ 60,616
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.28	\$ 65,874
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 63,803
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 60,387
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 58,485
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 48,342
<b>TOTAL</b>						
<b>Zone 2</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 65,294
Low-Density Residential	\$ 66,905	\$ 2,007	\$ 68,912	<b>0.70</b>	<b>1.00</b>	\$ 68,912
Medium-Density Residential	\$ 80,414	\$ 2,412	\$ 82,826	0.84	1.20	\$ 82,826
Medium/High-Density Residential	\$ 78,102	\$ 2,343	\$ 80,445	0.82	1.17	\$ 80,445
High-Density Residential	\$ 78,653	\$ 2,360	\$ 81,013	0.82	1.18	\$ 81,013
Neighborhood Commercial	\$ 85,477	\$ 2,564	\$ 88,041	0.89	1.28	\$ 88,041
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 85,273
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 80,707
Heavy Industrial	\$ 75,888	\$ 2,277	\$ 78,164	0.79	1.13	\$ 78,164
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Public/Quasi-Public (Schools)	\$ 62,727	\$ 1,882	\$ 64,609	0.66	0.94	\$ 64,609
<b>TOTAL</b>						
<b>Zone 3</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.81	\$ 56,431
Low-Density Residential	\$ 0	\$ 0	\$ 0	0.70	0.85	\$ 59,558
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 69,525
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 70,016
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.09	\$ 76,090
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Office	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.06	\$ 73,698
Light Industrial	\$ 67,720	\$ 2,032	\$ 69,752	0.82	<b>1.00</b>	\$ 69,752
Heavy Industrial	\$ 65,587	\$ 1,968	\$ 67,554	0.79	0.97	\$ 67,554
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.80	\$ 55,839
<b>TOTAL</b>						

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**Table 7**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Calculation Detail**

<b>Zone/ Land Use</b>	<b>Facility Cost per Net Acre</b>	<b>Admin. Cost per Net Acre</b>	<b>Total Cost per Net Acre</b>	<b>Runoff Coefficient</b>	<b>Relative Runoff Percent</b>	<b>Fee per Net Acre</b>
	<i>a</i>	<i>b=0.03*a</i>	<i>a+b</i>		[1]	
<b>Zone 4</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 31,812
Low-Density Residential	\$ 32,597	\$ 978	\$ 33,575	<b>0.70</b>	<b>1.00</b>	\$ 33,575
Medium-Density Residential	\$ 39,178	\$ 1,175	\$ 40,354	0.84	1.20	\$ 40,354
Medium/High-Density Residential	\$ 38,052	\$ 1,142	\$ 39,193	0.82	1.17	\$ 39,193
High-Density Residential	\$ 38,321	\$ 1,150	\$ 39,470	0.82	1.18	\$ 39,470
Neighborhood Commercial	\$ 41,645	\$ 1,249	\$ 42,894	0.89	1.28	\$ 42,894
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 41,546
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 39,321
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 38,083
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 31,478
<b>TOTAL</b>						
<b>Zone 5</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.81	\$ 33,442
Low-Density Residential	\$ 0	\$ 0	\$ 0	0.70	0.85	\$ 35,295
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 41,202
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 41,493
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.09	\$ 45,093
Highway Service Commercial	\$ 41,186	\$ 1,236	\$ 42,422	0.84	1.03	\$ 42,422
Office	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.06	\$ 43,675
Light Industrial	\$ 40,132	\$ 1,204	\$ 41,336	<b>0.82</b>	<b>1.00</b>	\$ 41,336
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	0.97	\$ 40,034
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.80	\$ 33,091
<b>TOTAL</b>						
<b>Zone 5a</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 48,194
Low-Density Residential	\$ 49,383	\$ 1,481	\$ 50,865	<b>0.70</b>	<b>1.00</b>	\$ 50,865
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 59,377
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.18	\$ 59,796
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.28	\$ 64,984
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Planned Commercial	\$ 61,107	\$ 1,833	\$ 62,941	0.86	1.24	\$ 62,941
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 59,570
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 57,694
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 47,688
<b>TOTAL</b>						

**Table 7**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Calculation Detail**

**DRAFT**

Zone/ Land Use	Facility Cost per Net Acre	Admin. Cost per Net Acre	Total Cost per Net Acre	Runoff Coefficient	Relative Runoff Percent	Fee per Net Acre
	a	b=.03*a	a+b		[1]	
<b>Zone 5b</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 29,210
Low-Density Residential	\$ 29,931	\$ 898	\$ 30,829	<b>0.70</b>	<b>1.00</b>	\$ 30,829
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 35,988
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.18	\$ 36,242
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.28	\$ 39,386
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 38,148
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 36,105
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 34,968
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 28,904
<b>TOTAL</b>						
<b>Zone 6</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.74	\$ 41,283
Low-Density Residential	\$ 0	\$ 0	\$ 0	0.70	0.78	\$ 43,571
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	0.91	\$ 50,862
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	0.92	\$ 51,221
Neighborhood Commercial	\$ 54,043	\$ 1,621	\$ 55,665	<b>0.89</b>	<b>1.00</b>	\$ 55,665
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Office	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Planned Commercial	\$ 52,344	\$ 1,570	\$ 53,915	0.86	0.97	\$ 53,915
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	0.92	\$ 51,028
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	0.89	\$ 49,420
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Commercial/Business Park	\$ 50,842	\$ 1,525	\$ 52,368	0.84	0.94	\$ 52,368
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.73	\$ 40,850
<b>TOTAL</b>						

fee calc

[1] For land uses that have projected development in a zone: fee per net acre = total cost per net acre.

For land uses that do not have projected development in a zone: fee per net acre = relative runoff pct \* fee per net acre

for land use shown in bold. The land use shown in bold is used as the basis of the relative runoff percent calculations.

For each land use, relative runoff percent = runoff coefficient/runoff coefficient of bolded land use.



## IV. FEE SUMMARY AND AB 1600 NEXUS FINDINGS

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This chapter summarizes the Flood Area Storm Drainage Fees and presents the findings necessary to establish the fees in accordance with AB 1600. The findings state: the purpose of the fee, the use of the fee, the relationship between the use of the fee and type of development, the relationship between need for the facility and the type of project, and the relationship between the amount of fee and the cost portion attributed to new development.

### FEE SUMMARY

**Table 8** summarizes the estimated Flood Area Storm Drainage Fees per net acre by flood area storm drainage zone and land use. As discussed in the previous chapter, each fee shown in **Table 8** includes a 3-percent administration fee. The administration fee covers costs associated with determining, levying, and collecting the fee.

### NEXUS FINDINGS

The nexus findings necessary to establish the Flood Area Storm Drainage Fees are detailed below.

#### PURPOSE OF FEE

The purpose of the fee is to provide for the collection and distribution of storm water in the flood area.

#### USE OF FEE

The fee will be used for the construction of new storm drainage facilities needed to address flooding problems in the flood area. The facilities needed to serve new development through buildout of the City's General Plan are detailed in the **Storm Drainage Cost Allocation Report** prepared by Wood Rodgers, Inc.

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**Table 8**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Summary**

Land Use	Flood Area Storm Drainage Fee per Net Acre							
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a	Zone 5b	Zone 6
Rural Residential	\$ 48,855	\$ 65,294	\$ 56,431	\$ 31,812	\$ 33,442	\$ 48,194	\$ 29,210	\$ 41,283
Low-Density Residential	\$ 51,562	\$ 68,912	\$ 59,558	\$ 33,575	\$ 35,295	\$ 50,865	\$ 30,829	\$ 43,571
Medium-Density Residential	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Medium/High-Density Residential	\$ 60,191	\$ 80,445	\$ 69,525	\$ 39,193	\$ 41,202	\$ 59,377	\$ 35,988	\$ 50,862
High-Density Residential	\$ 60,616	\$ 81,013	\$ 70,016	\$ 39,470	\$ 41,493	\$ 59,796	\$ 36,242	\$ 51,221
Neighborhood Commercial	\$ 65,874	\$ 88,041	\$ 76,090	\$ 42,894	\$ 45,093	\$ 64,984	\$ 39,386	\$ 55,665
Highway Service Commercial	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Office	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Planned Commercial	\$ 63,803	\$ 85,273	\$ 73,698	\$ 41,546	\$ 43,675	\$ 62,941	\$ 38,148	\$ 53,915
Light Industrial	\$ 60,387	\$ 80,707	\$ 69,752	\$ 39,321	\$ 41,336	\$ 59,570	\$ 36,105	\$ 51,028
Heavy Industrial	\$ 58,485	\$ 78,164	\$ 67,554	\$ 38,083	\$ 40,034	\$ 57,694	\$ 34,968	\$ 49,420
Business/Industrial Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Commercial/Business Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Public/Quasi-Public (Schools)	\$ 48,342	\$ 64,609	\$ 55,839	\$ 31,478	\$ 33,091	\$ 47,688	\$ 28,904	\$ 40,850

fee summary

## RELATIONSHIP BETWEEN USE OF FEE AND TYPE OF DEVELOPMENT

The development of new residential, office, commercial, and industrial land uses in the flood area of the City will generate additional runoff and the associated need for additional storm drain facilities to address potential flooding problems. The fees will be used to expand the storm drain system to prevent flooding as new development occurs in the flood area.

## RELATIONSHIP BETWEEN NEED FOR FACILITY AND TYPE OF PROJECT

Each new development project (residential, commercial, office, and industrial) in the flood area will generate additional runoff. All new development must have adequate storm drainage facilities to collect the storm water runoff and to prevent flooding.

## RELATIONSHIP BETWEEN AMOUNT OF FEE AND COST OF PORTION OF FACILITY ATTRIBUTED TO NEW DEVELOPMENT

For each storm drainage zone in the flood area, Wood Rodgers, Inc., estimated the total cost of the storm drainage facilities needed to solve flooding problems and allow new development. All of these costs were allocated to new development in the flood area. The total cost for each zone was allocated to the various land uses in the zone based on the percentage of total runoff generated by each land use. An additional 3 percent was added to each land use's cost share to account for the fee program administrative costs. For each land use, the total cost was divided by the number of net acres to determine the fee to be assessed on each net acre of development. Thus, the Flood Area Storm Drainage Fees are based directly on the costs allocated to new development in the flood area.

## V. IMPLEMENTATION AND UPDATE

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### INTRODUCTION

The proposed Flood Area Storm Drainage Fees presented in this report are based on the best land use information, facility cost estimates, and administrative cost estimates available at this time. After the fees are established, the City should conduct periodic reviews of the facility costs and other assumptions used in this Nexus Study to make necessary updates to the fees.

The cost estimates presented in this report are in constant 2005 dollars. All developers shall pay the amount of the fees in effect at the time that a final map is issued or at the time that a project is approved if no final map is required for the project. The fees recommended in this Nexus Study will be adjusted annually for inflation as outlined in this chapter.

### IMPLEMENTING ORDINANCES/RESOLUTIONS

This Nexus Study and proposed fees need to be approved by the Winters City Council through an ordinance and fee resolution to adopt the fees.

### COLLECTIONS

All new development that occurs in the flood area of the City after the adoption of the fees, except as specifically exempted herein, shall pay the fees at the time that a final map is issued or at the time that a project is approved if no final map is required for the project.

### EXEMPTIONS

Existing development is exempt from paying the fees. In addition, although fees have been established for new Public/Quasi Public development, all currently anticipated Public/Quasi Public uses except for schools have been exempted from paying the fee. If Yolo County was to develop in the City, however, then this development would be required to pay the Public/Quasi-public fee.

### ALLOWANCES FOR VARIATION IN LAND USES

This study uses the amount of remaining undeveloped acreage in each general plan land use designation as the basis for estimating the anticipated demand on storm drainage

facilities. Each general plan land use designation reflects a range of types of uses. Although generally somewhat uniform in the types of uses allowed in each land use category, certain atypical uses are allowed in land use designations that have somewhat different demands on public facilities from the typical uses. For example, multifamily residential units are allowed under the Neighborhood Commercial land use designation, even though the typical neighborhood commercial uses are retail uses, service uses, and offices. Thus, although residential use is included in what is *designated* in the general plan land use regulations as a commercial category, the *actual* type of use (residential) may more accurately reflect the demand on the City's storm drainage facilities. Therefore, where a use is proposed for development and the use is not typical of the use factors on which the fee was calculated for the applicable general plan land use designation, the fee that will be applied to that type of proposed use will be based on the category that most closely reflects the typical demands for that use.

## **FEE CREDITS AND REIMBURSEMENTS OVERVIEW**

As is typical with development impact fee programs, many of the public infrastructure facilities are needed up-front, in advance of when adequate revenue from the fee collection would be available to fund such improvements. Consequently, some type of private funding is necessary to pay for the public improvements when they are needed. This private financing may be in the form of land secured bonds, developer equity, or other form of private financing.

When private financing occurs, development impact fee programs need a mechanism to address situations where developers privately fund public facilities that would normally be funded by the fee program. To address this issue, fee credits and reimbursements will be allowed to provide the necessary link between collection of the Flood Area Storm Drainage Fees and the private construction and dedication of eligible facility improvements.

Developers/landowners who fund construction of storm drainage facilities included in this Nexus Study will be eligible for fee credits/reimbursements. Fee credits/reimbursements will be available for the facility construction cost up to a maximum of 1) the cost shown in this Nexus Study; or 2) actual costs if actual costs are less than the costs in this Nexus Study. Fee credits/reimbursements will be adjusted annually by the inflation factor used to adjust the fee. Once fee credits have been determined, they will be used at the time the respective fees would be due. The specific details of the fee credit/reimbursement policy are outlined in the following section.

## **FEE CREDITS AND REIMBURSEMENTS POLICY**

Fee credits/reimbursements for constructing storm drainage facilities that are part of the Flood Area Storm Drainage Fee program will be provided under the following conditions:

1. Developer-installed/acquired improvements shall be considered for reimbursement from the Flood Area Storm Drainage Fee program.
2. The value of any developer-installed/acquired improvements for reimbursement/fee credit purposes shall not exceed the total cost estimated (as adjusted for inflation) used to establish the amount of the fees in this Nexus Study, or actual costs, if actual costs are less than the Nexus Study costs.
3. The use of accumulated fee revenues shall be used in the following priority order: 1) City-determined critical projects and 2) repayment of accrued reimbursement to private developers. A project is deemed to be a "critical project" when failure to complete the project prohibits further development from occurring.

Once all criteria are met, fee credits may be taken against fees due. To obtain fee credits, the improvement projects must meet all City standards and criteria, and developers must apply to the City before payment of fees associated with a final subdivision map or the project approval if a final map is not required for a particular project. The City maintains the flexibility to allocate fee credits in a manner it chooses. Fee credits granted shall be on a per-net acre basis for all development projects.

Reimbursements will be due to developers who advance-fund facilities in excess of their fair share of the facility costs. In this instance, developers would first obtain fee credits, up to their fair share requirement for a facility, and then await reimbursement from fee revenue collections from other fee payers.

Reimbursement priority will be determined on a first-in and first-out basis. The City anticipates prioritizing the City accepted flood area storm drainage projects on a month-by-month basis. For example, if one storm drainage improvement project receives the City approval on the second of the month while another receives the City approval on the twentieth of the same month, each of the projects have equal weighting in terms of priority for reimbursement.

When funds are available, reimbursements will be paid to the first developer or group of developers awaiting reimbursement until that developer is paid in full. Then reimbursements will accrue to the next developer or group of developers awaiting reimbursement until paid in full.

To obtain reimbursements, developers must enter into a reimbursement agreement with the City. When funds are available, reimbursements will be paid quarterly, semi-annually, or as otherwise determined by the City. As noted, reimbursements will be paid only after the City's acceptance of the flood area storm drainage improvements. It is important to note that reimbursements are an obligation of the fee program and not an obligation of the City, City General Fund or other operating funds.

Developers will be eligible for fee credits/reimbursements up to 100 percent of the fee, excluding the administrative fee portion. Eligible public facility costs, which are used to determine fee credits/reimbursements, will be based on the cost schedule in this Nexus Study or actual construction costs if the fees are updated to include actual costs. The cost schedule in the Nexus Study will be automatically adjusted annually by the inflation factor described below.

## **ANNUAL INFLATION ADJUSTMENT AND PERIODIC FEE REVIEW**

### **INFLATION ADJUSTMENT**

The proposed fees will be adjusted annually by the City to account for the inflation of construction and acquisition costs. For ease of administration, the ordinance and resolution adopted to exact the fee should reference the automatic annual inflation adjustment.

The annual inflation adjustment should be made in January of each calendar year. The fees will be adjusted by the average of the change in the San Francisco CCI and the change in the 20-City CCI as reported in the Engineering News Record for the 12-month period ending October of the previous year. For example, the adjustment for January 2006 will be determined by calculating the change from October 2004 to October 2005 in the San Francisco CCI and the change for October 2004 to October 2005 in the 20-City CCI. These two rates of change will be averaged and the resulting value will be the adjustment factor for 2006.

### **PERIODIC FEE REVIEW**

In addition to being adjusted annually for inflation, the proposed fees are subject to a periodic update based on changes in developable land, cost estimates, or outside funding sources. The City periodically will review the costs and the fee rates to determine if any updates to the fees are warranted. During the periodic reviews, the City will analyze these items:

- Changes to the required facilities listed in the Nexus Study;
- Changes in the cost to update or administer the fee;
- Changes in costs greater than inflation;
- Changes in assumed land uses; and
- Changes in other funding sources.

Any changes to the fee based on the periodic update will be presented to the City for approval before increasing or decreasing the fee.

## **FEE ADMINISTRATION**

The proposed fees will be collected by the City at the time of building permit issuance. Per Government Code Section 66006, the City is required to deposit, invest, account for, and expend the fee revenue in a prescribed manner.

## **FIVE-YEAR REVIEW**

The fifth fiscal year following the first deposit into the fee account or fund, and every 5 years thereafter, the City is required to make all of the following findings with respect to that portion of the accounts or funds remaining unexpended:

- Identify the purpose for the fee;
- Demonstrate a reasonable relationship between the fee and the purpose for which it is charged;
- Identify all sources and amounts of funding anticipated to complete financing in incomplete plan area improvements; and
- Designate the approximate dates that the funding referred to in the above paragraph is expected to be deposited in the appropriate account or fund.

The City must refund the unexpended or uncommitted revenue portion for which a need could not be demonstrated in the above findings, unless the administrative costs exceed the amount of the refund.



CITY COUNCIL  
STAFF REPORT

**TO:** Honorable Mayor and Councilmembers  
**DATE:** January 21, 2014  
**THROUGH:** John W. Donlevy, Jr., City Manager  
**FROM:** Shelly A. Gunby, Director of Financial Management *Shelly*  
**SUBJECT:** Resolution 2014-02 A Resolution of the City Council of the City of Winters setting the amount of Drainage Impact Fees

---

**RECOMMENDATION:**

Staff recommends the City Council

1. Adopt Resolution 2014-02, Setting the amount of the Drainage Impact Fees

**BACKGROUND:**

On January 7, 2014 Ordinance 2014-01 was introduced and a public hearing was held regarding establishing a flood overlay zone fee which would allow the City to establish a finalized citywide flood area fee schedule by Resolution after adoption of Ordinance 2014-01.

The Ordinance is scheduled for a second reading and adoption on January 21, 2014. Once the Ordinance takes effect, fees must be set in order for the City of Winters to collect the fees and be able to begin planning and implementing the projects included in the 2005 Wood Rogers Report.

The fees are being set according to the information contained in the EPS Flood Area Storm Drainage Development Impact Fee Nexus Study. The City may implement the fees at the rates developed by EPS, or at a rate less than developed by EPS, but not more than the fee developed by EPS. Staff is recommending that Zone 6 be deleted from the schedule of fees due to the fact that there is currently a project proposed for that Zone, and the developer will be implementing projects for flood control with the development of the site, and the cost of those projects will be significantly more than the amount the City would collect. Fees for all other Zones are being set based on the Fee developed by EPS.

**FISCAL IMPACT:**

Collection of Impact Fees for Flood Control upon effective date of Ordinance 2014-01

**ATTACHMENTS:**

EPS Flood Area Storm Drainage Development Impact Fee Nexus Study  
Resolution 2014-02

**RESOLUTION 2014-02**

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF  
SETTING THE AMOUNT OF DRAINAGE IMPACT FEES**

**WHEREAS**, The Municipal code of the City of Winters, Section 15.76.030A authorizes the City Council to adopt by resolution a schedule of charges and fees for the collection of Drainage Impact Fees ; and

**WHEREAS**, on January 21, 2014 the City Council adopted Ordinance 2014-0, adding Chapter 15.90 of Title 15 of the Winters Municipal Code to Establish a Drainage Impact Fee; and

**WHEREAS**, the Wood Rogers Report Dated September 9, 2005 established the need for a Drainage Impact fee; and

**WHEREAS**, the EPS Report Dated November 4, 2005 established the nexus for charging an impact fee to development; and

**WHEREAS**, the City Council of the City of Winters after duly studying and determining reasonable costs for the implementation of a Drainage Control Plan and having duly deliberated thereon;

**NOW, THEREFORE BE IT RESOLVED** by the City Council of the City of Winters does hereby approve the Drainage Impact fees as attached hereto as Exhibit A and incorporated herein as fully set forth.

**PASSED AND ADOPTED** by the City Council, City of Winters, this 21st day of January 2014 by the following roll call vote:

**AYES:**

**NOES:**

**ABSTAIN:**

**ABSENT:**

---

Cecilia Aguiar-Curry, MAYOR

**ATTEST:**

---

Nanci G. Mills, CITY CLERK

Attachment A - Resolution 2014-02

City of Winters  
Drainage Impact Fee

Zone	Rural Residential	Low Density Residential	Medium Density Residential	Medium/High Density Residential	High Density Residential	Neighborhood Commercial	Heavy Industry	Public/Quasi Public	Light Commercial	Highway Service Commercial	Light Industrial	Planned Commercial
1	\$47,432.00	\$ 50,060.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	\$ -	\$ 66,905.00	\$ 80,414.00	\$ 78,102.00	\$78,653.00	\$ 85,477.00	\$ 75,888.00	\$ 62,727.00	\$ -	\$ -	\$ -	\$ -
3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 65,587.00	\$ -	\$ -	\$ -	\$67,720.00	\$ -
4	\$ -	\$ 32,597.00	\$ 39,178.00	\$ 38,052.00	\$38,321.00	\$ 41,645.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$41,186.00	\$40,132.00	\$ -
5a	\$ -	\$ 49,383.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$61,107.00
5b	\$ -	\$ 29,931.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Economic &  
Planning Systems

*Public Finance  
Real Estate Economics  
Regional Economics  
Land Use Policy*

## DRAFT REPORT

# FLOOD AREA STORM DRAINAGE DEVELOPMENT IMPACT FEE NEXUS STUDY

Prepared for:

City of Winters

Prepared by:

Economic & Planning Systems, Inc.

November 4, 2005

EPS #15493

#### SACRAMENTO

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## CONTACT INFORMATION

### Flood Area Storm Drainage Development Impact Fee Nexus Study November 4, 2005

This nexus study was prepared by Economic & Planning Systems, Inc., (EPS) a firm specializing in real estate economics, regional economics, public finance, and land use policy. The report (EPS Project #15493) was commissioned by the City of Winters.

Tim R. Youmans served as principal-in-charge and oversaw all aspects of the assignment. Allison Shaffer served as project manager and conducted the nexus study.

The analyses, opinions, recommendations, and conclusions of this report are EPS's informed judgment based on market and economic conditions as of the date of this report. Changes in the market conditions or the economy could change or invalidate the conclusions contained herein. The contents of this report are based, in part, on data from secondary sources. While it is believed that these sources are accurate, EPS cannot guarantee their accuracy. The findings herein are based on economic considerations and, therefore, should not be construed as a representation or as an opinion that government approvals for development can be secured. Conclusions and recommended actions contained in this report should not be relied on as sole input for final business decisions regarding current and future development and planning, nor utilized for purposes beyond the scope and objectives of the current study.

Questions regarding the information contained herewith should be directed to:

Tim R. Youmans  
Principal-in-Charge

or

Allison Shaffer  
Project Manager

ECONOMIC & PLANNING SYSTEMS, INC.

1750 Creekside Oaks Drive, Suite 290  
Sacramento, CA 95833  
(916) 649-8010 Phone  
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# I. EXECUTIVE SUMMARY

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## BACKGROUND

Much of the City of Winters (City) is located in an area referred to in this report as the "flood area" of the City. The flood area consists of the flood overlay area from the City's General Plan plus some additional areas later determined through the City-wide *Storm Drainage Master Plan Study* to be in the floodplain and to have a need for storm drainage flood facilities. Development may not occur in the flood area until a comprehensive solution to its flooding problem has been identified and development impact fees established to fund the necessary storm drainage facilities. There are eight different storm drainage zones in the flood area, each with different requirements for storm drainage facilities.

The *Moody Slough Sub-basin Drainage Report* and the *Putah Creek/Dry Creek Sub-basins Drainage Report*, prepared by Wood Rodgers, Inc., identify a comprehensive flood solution, including the storm drainage facility requirements and estimated costs of the facilities needed to serve new development in the flood area. In addition, the *Draft Storm Drainage Cost Allocation Report* prepared by Wood Rodgers, Inc. contains a cost allocation of the needed facilities to the different flood area zones based on each zone's facility requirements through buildout of the City's General Plan.

## PURPOSE

The purpose of this study is to adopt a storm drainage development impact fee (Flood Area Storm Drainage Fee or fee) to be assessed on all new development in the eight zones of the flood area and to establish the nexus between projected new development in this area through buildout of the City's General Plan and the storm drainage facilities required to serve this development. This nexus will serve as the basis for requiring development impact fees under AB 1600 legislation, as codified by California Government Section 66000 et seq. This code section sets forth the procedural requirements for establishing and collecting development impact fees. These procedures require that "a reasonable relationship, or nexus, must exist between a governmental exaction and the purpose of the condition." Specifically, each local agency imposing a fee must:

- Identify the purpose of the fee;
- Identify how the fee will be used;
- Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed;

- Determine how a reasonable relationship exists between the need for the public facility and the type of development project on which the fee is imposed; and
- Demonstrate a reasonable relationship between the amount of the fee and the cost of public facility or portion of the public facility attributable to the development on which the fee is imposed.

The development fees to be collected for each land use in a zone are calculated based on the proportionate share of the zone's total facility use that each land use represents.

## **SUMMARY OF FINDINGS**

To solve the flooding problem in the flood area, the City will need to construct additional storm drainage facilities to serve new development through buildout of the General Plan. Using the flood area facilities requirements, facilities costs, and cost allocation to flood area zones presented in the Wood Rodgers, Inc. reports discussed previously, Economic & Planning Systems, Inc., (EPS) calculated the Flood Area Storm Drainage Fees by flood area zone needed to fund the facilities. These fees are shown in **Table 1**.

## **ORGANIZATION OF REPORT**

The report is divided into five chapters, including this Executive Summary, as follows:

- **Chapter II** describes the future development and storm drainage facility needs for the flood area.
- **Chapter III** provides the cost allocation and fee calculation methodology used to establish the Flood Area Storm Drainage Fees.
- **Chapter IV** provides the nexus findings required to establish the fees.
- **Chapter V** describes the implementation of the fee program and reporting requirements.

# DRAFT

**Table 1**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Summary**

Land Use	Flood Area Storm Drainage Fee per Net Acre					
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Rural Residential	\$ 48,855	\$ 65,294	\$ 56,431	\$ 31,812	\$ 33,442	\$ 48,194
Low-Density Residential	\$ 51,562	\$ 68,912	\$ 59,558	\$ 33,575	\$ 36,295	\$ 50,865
Medium-Density Residential	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135
Medium/High-Density Residential	\$ 60,191	\$ 80,445	\$ 69,525	\$ 39,193	\$ 41,202	\$ 59,377
High-Density Residential	\$ 60,616	\$ 81,013	\$ 70,016	\$ 39,470	\$ 41,493	\$ 59,796
Neighborhood Commercial	\$ 65,874	\$ 88,041	\$ 76,090	\$ 42,894	\$ 45,093	\$ 64,984
Highway Service Commercial	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135
Office	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135
Planned Commercial	\$ 63,803	\$ 85,273	\$ 73,698	\$ 41,546	\$ 43,675	\$ 62,941
Light Industrial	\$ 60,387	\$ 80,707	\$ 69,752	\$ 39,321	\$ 41,336	\$ 59,570
Heavy Industrial	\$ 58,485	\$ 78,164	\$ 67,554	\$ 38,083	\$ 40,034	\$ 57,694
Business/Industrial Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135
Commercial/Business Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135
Public/Quasi-Public (Schools)	\$ 48,342	\$ 64,609	\$ 55,839	\$ 31,478	\$ 33,091	\$ 47,688

fee summary

## II. FUTURE DEVELOPMENT AND FACILITY NEEDS

---

This chapter describes the amount of growth projected to occur in the flood area of the City and the storm drainage facilities needed to serve this new development and prevent flooding.

### LAND USE

There are eight storm drainage zones in the flood area of the City. Wood Rodgers, Inc. estimated the remaining development by storm drainage zone and land use through buildout (2010) of the City's General Plan, as detailed in the **Storm Drainage Cost Allocation Report**. These development estimates are consistent with the land uses specified in the General Plan. **Map 1** shows the General Plan land uses by storm drainage zone.

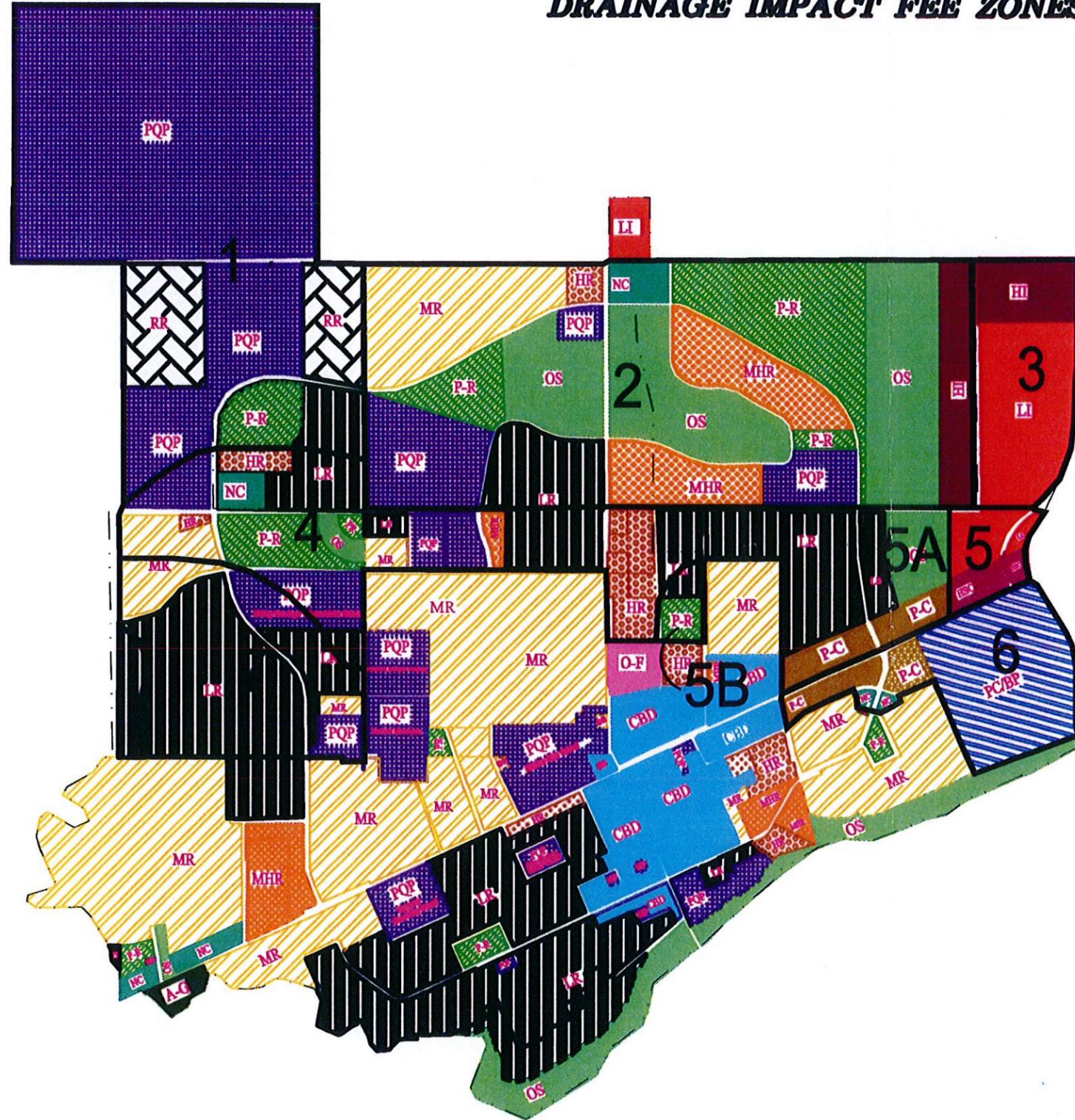
For the purposes of establishing the Flood Area Storm Drainage fees, EPS made several adjustments to the Wood Rodgers, Inc. development projections. The adjusted development projections are summarized in **Table 2**. The adjustments are as follows.

1. Development projections for land uses that are exempted from paying development impact fees are excluded from **Table 2**. These exempt land uses include all Public/Quasi-Public development except schools, Recreation/Parks, and Open Space.
2. The Central Business District land is excluded since this land use is restricted to the downtown area of the City, which is not contained in any of the flood area zones and thus will not pay the Flood Area Storm Drainage fee.
3. EPS assumed that not all of the remaining nonresidential development would occur within the General Plan timeframe. Specifically, EPS assumed that only 75 percent of the Planned Commercial, Light Industrial, Business/Industrial Park, and Commercial/Business Park projected development would occur within the General Plan timeframe.

Overall, EPS projects that 479 acres in the flood area will develop within the General Plan timeframe and will participate in the Flood Area Storm Drainage fee program. These development projections will be re-evaluated and revised as part of any future fee updates.

# CITY OF WINTERS

## DRAINAGE IMPACT FEE ZONES



### GENERAL PLAN LAND USE DIAGRAM

- AGRICULTURE (AG)
  - RURAL RESIDENTIAL (RR)
  - LOW-DENSITY RESIDENTIAL (LR)
  - MEDIUM-DENSITY RESIDENTIAL (MR)
  - MEDIUM/HIGH DENSITY (MHR)
  - HIGH-DENSITY RESIDENTIAL (HR)
  - NEIGHBORHOOD COMMERCIAL (NC)
  - CENTRAL BUSINESS DISTRICT (CBD)
  - HIGHWAY SERVICE COMMERCIAL (HSC)
  - OFFICE (OF)
  - PLANNED COMMERCIAL (PC)
  - PLANNED COMMERCIAL BUSINESS PARK (PC/BP)
  - LIGHT INDUSTRIAL (LI)
  - HEAVY INDUSTRIAL (HI)
  - PUBLIC/QUASI-PUBLIC (PQP)
  - PARKS AND RECREATION (PR)
  - OPEN SPACE (OS)
- URBAN LIMIT LINE  
 CITY LIMITS



# DRAFT

**Table 2**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Projected Buildout Development**

Land Use	Percent to Develop	Projected Non-Exempt Development (Gross Acres)						Total			
		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a		Zone 5b	Zone 6	
Rural Residential	100%	46.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.71
Low-Density Residential	100%	12.38	22.87	0.00	49.49	0.00	0.00	31.67	0.00	2.35	118.76
Medium-Density Residential	100%	0.00	47.20	0.00	13.66	0.00	0.00	0.00	0.00	0.00	60.86
Medium/High-Density Residential	100%	0.00	43.89	0.00	2.06	0.00	0.00	0.00	0.00	0.00	45.95
High-Density Residential	100%	0.00	3.61	0.00	21.19	0.00	0.00	0.00	0.00	0.00	24.80
Neighborhood Commercial	100%	0.00	6.30	0.00	4.41	0.00	0.00	0.00	0.00	0.00	12.15
Highway Service Commercial	100%	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	3.34
Office	100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planned Commercial [1]	75%	0.00	0.00	0.00	0.00	0.00	0.00	10.44	0.00	0.00	18.00
Light Industrial [1]	75%	0.00	0.00	29.55	0.00	0.00	0.00	0.00	7.16	0.00	36.71
Heavy Industrial	100%	0.00	20.25	8.31	0.00	0.00	0.00	0.00	0.00	0.00	28.56
Business/Industrial Park [1]	75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business Park [1]	75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.04
Public/Quasi-Public (Schools)	100%	0.00	43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.50
<b>Total</b>		<b>59.09</b>	<b>187.62</b>	<b>37.86</b>	<b>90.81</b>	<b>10.50</b>	<b>42.11</b>	<b>2.35</b>	<b>49.04</b>	<b>479.37</b>	

Source: Wood Rodgers, Inc. and EPS

[1] EPS estimates that only 75% of buildout development actually will occur within the General Plan timeframe (by 2010) for the indicated land uses. Development projections will be reviewed and possibly revised as part of any future fee updates.

development

## FACILITY NEEDS AND ESTIMATED COSTS

Wood Rodgers, Inc. determined the storm drainage facilities needed by new development in the flood area to address flooding problems and estimated the costs of these facilities. They then allocated the cost of each facility to the different storm drainage zones by first determining which zones would use the facility, then allocating the total costs to these zones based on the relative amount of facility usage for each zone as measured by runoff coefficients.

The facility requirements, facility cost estimates, and cost allocation to zones are detailed in the **Storm Drainage Cost Allocation Report** and summarized in **Table 3**. In total, an estimated \$23.5 million of storm drainage facilities are needed to serve new development in the flood area.

**DRAFT**

**Table 3**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Facility Costs by Zone**

Facility	Benefiting Zones	Total Cost	Total Facility Cost By Zone							
			Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a	Zone 5b	Zone 6
Putah Creek Diversion Channel	All	\$ 2,775,410	\$ 272,348	\$ 1,063,701	\$ 267,211	\$ 475,369	\$ 73,029	\$ 235,116	\$ 11,300	\$ 377,334
Detention/Water Quality Pond #1	1, 2, 4	\$ 4,476,810	\$ 672,439	\$ 2,623,620	\$ 0	\$ 1,180,751	\$ 0	\$ 0	\$ 0	\$ 0
Open Channel Connecting Ponds 1 & 2	1, 2, 4	\$ 480,260	\$ 72,137	\$ 281,455	\$ 0	\$ 126,668	\$ 0	\$ 0	\$ 0	\$ 0
Detention/Water Quality Pond #2	1, 2, 4	\$ 3,414,745	\$ 512,912	\$ 2,001,200	\$ 0	\$ 900,633	\$ 0	\$ 0	\$ 0	\$ 0
Detention/Water Quality Pond #3	1, 2	\$ 2,795,790	\$ 571,672	\$ 2,224,118	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Water Quality Pond #4	1	\$ 276,590	\$ 276,590	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Water Quality Pond #5	3	\$ 212,475	\$ 0	\$ 0	\$ 212,475	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Winters North Drain	2, 3	\$ 4,160,310	\$ 0	\$ 3,327,147	\$ 833,163	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Winters North Drain Ultimate Levee	2, 3	\$ 149,190	\$ 0	\$ 119,313	\$ 29,877	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
I-505 Floodwall	3, 5	\$ 1,007,005	\$ 0	\$ 0	\$ 790,215	\$ 0	\$ 216,790	\$ 0	\$ 0	\$ 0
Grant Street Interceptor	5A, 5B	\$ 1,048,620	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,001,457	\$ 47,163	\$ 0
Area 5 On-Site	5	\$ 62,630	\$ 0	\$ 0	\$ 0	\$ 0	\$ 62,630	\$ 0	\$ 0	\$ 0
Area 5A On-Site	5A	\$ 607,535	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 607,535	\$ 0	\$ 0
Area 6 Facilities	6	\$ 1,711,145	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,711,145
Drainage Report	All	\$ 150,000	\$ 14,719	\$ 57,489	\$ 14,442	\$ 25,692	\$ 3,947	\$ 12,707	\$ 611	\$ 20,393
Future Drainage Report Update	All	\$ 175,000	\$ 17,173	\$ 67,070	\$ 16,849	\$ 29,974	\$ 4,605	\$ 14,825	\$ 713	\$ 23,792
<b>Total Cost</b>		<b>\$ 23,503,515</b>	<b>\$ 2,409,991</b>	<b>\$ 11,765,113</b>	<b>\$ 2,164,232</b>	<b>\$ 2,739,087</b>	<b>\$ 361,001</b>	<b>\$ 1,871,640</b>	<b>\$ 59,787</b>	<b>\$ 2,132,665</b>

fac costs

Source: Wood Rodgers, Inc.

Prepared by EPS

15493 model2.xls 11/3/2005

### III. COST ALLOCATION AND FEE CALCULATIONS

---

This chapter describes the cost allocation methodology and uses the cost allocation to calculate the proposed Flood Area Storm Drainage Fees by storm drainage zone. The following steps describe the methodology used to calculate the fees.

1. For each storm drainage zone in the flood area, project development by land use through buildout of the City's General Plan. The development projections are detailed in the previous chapter.
2. Estimate the costs of the storm drainage facilities needed by new development in the flood area to address flooding problems. Allocate the costs of these facilities to the eight storm drainage zones. The costs by zone are detailed in the previous chapter.
3. For each zone, allocate the facility costs to the land uses and determine a facility cost per net acre for each land use. The methodology to perform this cost allocation is discussed in this chapter.
4. For each zone, calculate the fees by land use based on the cost per net acre from the previous step and an additional cost for the fee program administration to be included in each land use's fee. The methodology of calculating the proposed fees is discussed in this chapter.

#### COST ALLOCATION

The allocation of costs to the land uses will serve as the basis for establishing the proposed fees. The costs must be allocated equitably so that the cost for each land use represents the relative facility usage attributed to that land use. Runoff coefficients are estimates of the percentage of precipitation that will result in runoff, and thus are a good measure of relative storm drainage facility usage that will be required by each land use. Consequently, runoff coefficients are used to allocate the costs to the land uses. The following steps describe the cost allocation process.

1. Estimate average runoff coefficients for each land use. Wood Rodgers, Inc. estimated runoff coefficients by land use for three different soil types. These runoff coefficients are detailed in the **Storm Drainage Cost Allocation Report**. EPS created average runoff coefficients by land use that are weighted averages of the runoff coefficients by soil type. **Table 4** shows the calculation of the average run-off coefficients. Since there is no new development projected for the Office and Business/Industrial Park land uses, average runoff coefficients for these land uses are set equal to the average runoff coefficient for the Commercial/Business Park land use.

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**Table 4**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Average Runoff Coefficients**

Non-exempt Land Uses	Soil Type B			Soil Type C			Soil Type D			Total		
	Acres	Percent of Total		Acres	Percent of Total		Acres	Percent of Total		Acres	Average Run-off Coefficient	
		Run-off Coefficient	Run-off Coefficient		Run-off Coefficient	Run-off Coefficient		Run-off Coefficient	Run-off Coefficient		Run-off Coefficient	Run-off Coefficient
Rural Residential	13.50	29%	0.52	0%	0.00	0%	0.65	33.21	71%	0.72	46.71	0.66
Low-Density Residential	20.08	17%	0.58	44%	52.04	44%	0.69	46.64	39%	0.76	118.76	0.70
Medium-Density Residential	0.00	0%	0.72	0%	0.00	0%	0.81	60.86	100%	0.84	60.86	0.84
Medium/High-Density Residential	2.26	5%	0.72	61%	27.95	61%	0.81	15.74	34%	0.84	45.95	0.82
High-Density Residential	0.00	0%	0.72	61%	15.20	61%	0.81	9.60	39%	0.84	24.80	0.82
Neighborhood Commercial	1.44	12%	0.84	0%	0.00	0%	0.88	10.71	88%	0.90	12.15	0.89
Highway Service Commercial	3.34	100%	0.84	0%	0.00	0%	0.88	0.00	0%	0.90	3.34	0.84
Office [1]	0.00	0%	0.84	0%	0.00	0%	0.88	0.00	0%	0.90	0.00	0.84
Planned Commercial	9.11	38%	0.84	62%	14.89	62%	0.88	0.00	0%	0.90	24.00	0.86
Light Industrial	1.46	3%	0.77	97%	47.48	97%	0.82	0.00	0%	0.86	48.94	0.82
Heavy Industrial	15.58	55%	0.77	45%	12.98	45%	0.82	0.00	0%	0.86	28.56	0.79
Business/Industrial Park [1]	0.00	0%	0.84	0%	0.00	0%	0.88	0.00	0%	0.90	0.00	0.84
Commercial/Business Park	53.38	100%	0.84	0%	0.00	0%	0.88	0.00	0%	0.90	53.38	0.84
Public/Quasi-Public (Schools) [2]	9.50	22%	0.58	7%	3.17	7%	0.64	30.83	71%	0.68	43.50	0.66
<b>TOTAL</b>	<b>129.65</b>				<b>173.71</b>			<b>207.59</b>			<b>510.95</b>	

*runoff avg*

Source: Wood Rodgers, Inc.

[1] There is no remaining development for these land uses in the flood area zones, so average runoff coefficients were estimated as equal to the average runoff coefficient for the Commercial/Business Park land use.

[2] Only schools are included in the Public/Quasi-Public acres. All other Public/Quasi-Public acres are exempt from the fee program. The runoff coefficients shown are for City of Woodland schools (calculated by Wood Rodgers, Inc.). The runoff coefficients for Winters Public/Quasi-Public land uses are averages for all Public/Quasi-Public land uses, and thus are not accurate to use for schools, which have more impervious area and lower runoff coefficients than other Public/Quasi-Public uses.

2. In each zone, calculate total runoff acres by land use. Runoff acres are calculated as the projected acres of new development multiplied by the run-off coefficient. These runoff acres represent the relative amount of storm drainage facility usage for each land use. **Table 5** details the calculation of the runoff acres.
3. For each zone, allocate the total facility costs to the land uses based on their percentages of total runoff acres. **Table 6** shows this cost allocation.
4. For each zone, estimate the facility cost per net acre by land use. Net acres are estimated as 85 percent of the projected gross acres. For each land use, the cost per net acre is calculated as the total cost allocated to the land use in the previous step divided by the net acres. **Table 6** shows this calculation.

## FEE CALCULATION

In each zone, the fees by land use are calculated differently depending on whether or not a particular land use has any projected development. **Table 7** shows the fee calculations.

### LAND USES WITH PROJECTED DEVELOPMENT

In each zone, fees for land uses with projected development are calculated using the facility cost allocations described previously. An administrative cost per net acre is added to the facility cost per net acre to calculate a total cost per net acre. The administrative cost is estimated as 3 percent of the facility cost and covers the cost of the fee program administration. The total cost per net acre serves as the proposed fee for the land use.

### LAND USES WITHOUT PROJECTED DEVELOPMENT

In each zone, there are land uses for which no future development is projected. Even though there is no projected development, it is possible that development may occur, and therefore fees must be established for these land uses. Fees are estimated based on the land use's runoff coefficient as compared to the runoff coefficient for a land use with projected development. For example, in Zone 1, the fee per acre of rural residential development is established as 95 percent of the fee per acre of low-density residential development because the rural residential runoff coefficient is 95 percent of the low-density residential runoff coefficient. Based on the runoff coefficients, rural residential development generates 95 percent of the runoff that low-density residential development generates, so it is reasonable to charge rural residential development a fee that is 95 percent of the fee for low-density development.

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**Table 5**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Runoff Acres by Storm Drainage Zone**

Non-Exempt Land Uses	Average Run-off Coefficient	Total		Zone 1		Zone 2		Zone 3		Zone 4	
		Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres
Rural Residential	0.66	46.71	30.93	46.71	30.93	0.00	0.00	0.00	0.00	0.00	0.00
Low-Density Residential	0.70	118.76	83.00	12.38	8.65	22.87	15.98	0.00	0.00	49.49	34.59
Medium-Density Residential	0.84	60.86	51.12	0.00	0.00	47.20	39.65	0.00	0.00	13.66	11.47
Medium/High-Density Residential	0.82	45.95	37.49	0.00	0.00	43.89	35.81	0.00	0.00	2.06	1.68
High-Density Residential	0.82	24.80	20.38	0.00	0.00	3.61	2.97	0.00	0.00	21.19	17.41
Neighborhood Commercial	0.89	12.15	10.85	0.00	0.00	6.30	5.63	0.00	0.00	4.41	3.94
Highway Service Commercial	0.84	3.34	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Office	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planned Commercial	0.86	24.00	20.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Industrial	0.82	48.94	40.06	0.00	0.00	0.00	0.00	29.55	24.19	0.00	0.00
Heavy Industrial	0.79	28.56	22.64	0.00	0.00	20.25	16.05	8.31	6.59	0.00	0.00
Business/Industrial Park	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business Park	0.84	53.38	44.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public/Quasi-Public (Schools)	0.66	43.50	28.50	0.00	0.00	43.50	28.50	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>510.95</b>	<b>393.37</b>	<b>59.09</b>	<b>39.58</b>	<b>187.62</b>	<b>144.59</b>	<b>37.86</b>	<b>30.77</b>	<b>90.81</b>	<b>69.09</b>

[1] Runoff acres = average runoff coefficient (pct of precipitation that becomes run-off) \* acres

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**Table 5**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Runoff Acres by Storm Drainage Zone**

Non-Exempt Land Uses	Average Run-off Coefficient	Zone 5		Zone 5a		Zone 5b		Zone 6	
		Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres	Acres	Runoff Acres
Rural Residential	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Low-Density Residential	0.70	0.00	0.00	31.67	22.13	2.35	1.64	0.00	0.00
Medium-Density Residential	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium/High-Density Residential	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High-Density Residential	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Commercial	0.89	0.00	0.00	0.00	0.00	0.00	0.00	1.44	1.29
Highway Service Commercial	0.84	3.34	2.81	0.00	0.00	0.00	0.00	0.00	0.00
Office	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planned Commercial	0.86	0.00	0.00	10.44	9.03	0.00	0.00	7.56	6.54
Light Industrial	0.82	7.16	5.86	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Industrial	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Business/Industrial Park	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial/Business Park	0.84	0.00	0.00	0.00	0.00	0.00	0.00	40.04	33.63
Public/Quasi-Public (Schools)	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>10.50</b>	<b>8.66</b>	<b>42.11</b>	<b>31.16</b>	<b>2.35</b>	<b>1.64</b>	<b>49.04</b>	<b>41.45</b>

*alloc units by area*  
 [1] Runoff acres = average runoff coefficient (pct of precipitation that becomes run-off) \* acres

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**Table 6**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Cost Allocation Detail**

Zone/ Land Use	Runoff Acres	Pct of Total Runoff Acres	Total Cost	Gross Acres	Net Acre Percent	Net Acres	Facility Cost per Net Acre
	a	b	c=zone total cost*b	d	e	f=d*e	g=c/f
<b>Zone 1</b>							
Rural Residential	30.93	78%	\$ 1,883,208	46.71	85%	39.70	\$ 47,432
Low-Density Residential	8.65	22%	\$ 526,783	12.38	85%	10.52	\$ 50,060
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>39.58</b>	<b>100%</b>	<b>\$ 2,409,991</b>	<b>59.09</b>		<b>50.23</b>	
<b>Zone 2</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	15.98	11%	\$ 1,300,603	22.87	85%	19.44	\$ 66,905
Medium-Density Residential	39.65	27%	\$ 3,226,190	47.20	85%	40.12	\$ 80,414
Medium/High-Density Residential	35.81	25%	\$ 2,913,698	43.89	85%	37.31	\$ 78,102
High-Density Residential	2.97	2%	\$ 241,348	3.61	85%	3.07	\$ 78,653
Neighborhood Commercial	5.63	4%	\$ 457,727	6.30	85%	5.36	\$ 85,477
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	16.05	11%	\$ 1,306,218	20.25	85%	17.21	\$ 75,888
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	28.50	20%	\$ 2,319,329	43.50	85%	36.98	\$ 62,727
<b>TOTAL</b>	<b>144.59</b>	<b>100%</b>	<b>\$ 11,765,113</b>	<b>144.12</b>		<b>122.50</b>	
<b>Zone 3</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	24.19	79%	\$ 1,700,959	29.55	85%	25.12	\$ 67,720
Heavy Industrial	6.59	21%	\$ 463,272	8.31	85%	7.06	\$ 65,587
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>30.77</b>	<b>100%</b>	<b>\$ 2,164,232</b>	<b>37.86</b>		<b>32.18</b>	

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**Table 6**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Cost Allocation Detail**

Zone/ Land Use	Runoff Acres	Pct of Total Runoff Acres	Total Cost	Gross Acres	Net Acre Percent	Net Acres	Facility Cost per Net Acre
	a	b	c=zone total cost*b	d	e	f=d*e	g=c/f
<b>Zone 4</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	34.59	50%	\$ 1,371,238	49.49	85%	42.07	\$ 32,597
Medium-Density Residential	11.47	17%	\$ 454,899	13.66	85%	11.61	\$ 39,178
Medium/High-Density Residential	1.68	2%	\$ 66,629	2.06	85%	1.75	\$ 38,052
High-Density Residential	17.41	25%	\$ 690,214	21.19	85%	18.01	\$ 38,321
Neighborhood Commercial	3.94	6%	\$ 156,107	4.41	85%	3.75	\$ 41,645
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>69.09</b>	<b>100%</b>	<b>\$ 2,739,087</b>	<b>90.81</b>		<b>77.19</b>	
<b>Zone 5</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	2.81	32%	\$ 116,927	3.34	85%	2.84	\$ 41,186
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	5.86	68%	\$ 244,074	7.16	85%	6.08	\$ 40,132
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>8.66</b>	<b>100%</b>	<b>\$ 361,001</b>	<b>10.50</b>		<b>8.92</b>	
<b>Zone 5a</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	22.13	71%	\$ 1,329,373	31.67	85%	26.92	\$ 49,383
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	9.03	29%	\$ 542,267	10.44	85%	8.87	\$ 61,107
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>31.16</b>	<b>100%</b>	<b>\$ 1,871,640</b>	<b>42.11</b>		<b>35.79</b>	

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**Table 6**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Cost Allocation Detail**

Zone/ Land Use	Runoff Acres	Pct of Total Runoff Acres	Total Cost	Gross Acres	Net Acre Percent	Net Acres	Facility Cost per Net Acre
	a	b	c=zone total cost*b	d	e	f=d*e	g=c/f
<b>Zone 5b</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	1.64	100%	\$ 59,787	2.35	85%	2.00	\$ 29,931
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>1.64</b>	<b>100%</b>	<b>\$ 59,787</b>	<b>2.35</b>		<b>2.00</b>	
<b>Zone 6</b>							
Rural Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Low-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Medium/High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
High-Density Residential	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Neighborhood Commercial	1.29	3%	\$ 66,149	1.44	85%	1.22	\$ 54,043
Highway Service Commercial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Office	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Planned Commercial	6.54	16%	\$ 336,365	7.56	85%	6.43	\$ 52,344
Light Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Heavy Industrial	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Business/Industrial Park	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
Commercial/Business Park	33.63	81%	\$ 1,730,151	40.04	85%	34.03	\$ 50,842
Public/Quasi-Public (Schools)	0.00	0%	\$ 0	0.00	85%	0.00	\$ 0
<b>TOTAL</b>	<b>41.45</b>	<b>100%</b>	<b>\$ 2,132,665</b>	<b>49.04</b>		<b>7.65</b>	

cost alloc

**Table 7**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Calculation Detail**

**DRAFT**

<b>Zone/ Land Use</b>	<b>Facility Cost per Net Acre</b>	<b>Admin. Cost per Net Acre</b>	<b>Total Cost per Net Acre</b>	<b>Runoff Coefficient</b>	<b>Relative Runoff Percent</b>	<b>Fee per Net Acre</b>
	<i>a</i>	<i>b=.03*a</i>	<i>a+b</i>		[1]	
<b>Zone 1</b>						
Rural Residential	\$ 47,432	\$ 1,423	\$ 48,855	0.66	0.95	\$ 48,855
Low-Density Residential	\$ 50,060	\$ 1,502	\$ 51,562	<b>0.70</b>	<b>1.00</b>	\$ 51,562
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 60,191
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.18	\$ 60,616
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.28	\$ 65,874
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 63,803
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 60,387
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 58,485
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,972
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 48,342
<b>TOTAL</b>						
<b>Zone 2</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 65,294
Low-Density Residential	\$ 66,905	\$ 2,007	\$ 68,912	<b>0.70</b>	<b>1.00</b>	\$ 68,912
Medium-Density Residential	\$ 80,414	\$ 2,412	\$ 82,826	0.84	1.20	\$ 82,826
Medium/High-Density Residential	\$ 78,102	\$ 2,343	\$ 80,445	0.82	1.17	\$ 80,445
High-Density Residential	\$ 78,653	\$ 2,360	\$ 81,013	0.82	1.18	\$ 81,013
Neighborhood Commercial	\$ 85,477	\$ 2,564	\$ 88,041	0.89	1.28	\$ 88,041
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 85,273
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 80,707
Heavy Industrial	\$ 75,888	\$ 2,277	\$ 78,164	0.79	1.13	\$ 78,164
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 82,826
Public/Quasi-Public (Schools)	\$ 62,727	\$ 1,882	\$ 64,609	0.66	0.94	\$ 64,609
<b>TOTAL</b>						
<b>Zone 3</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.81	\$ 56,431
Low-Density Residential	\$ 0	\$ 0	\$ 0	0.70	0.85	\$ 59,558
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 69,525
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 70,016
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.09	\$ 76,090
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Office	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.06	\$ 73,698
Light Industrial	\$ 67,720	\$ 2,032	\$ 69,752	0.82	<b>1.00</b>	\$ 69,752
Heavy Industrial	\$ 65,587	\$ 1,968	\$ 67,554	0.79	0.97	\$ 67,554
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 71,583
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.80	\$ 55,839
<b>TOTAL</b>						

**Table 7**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Calculation Detail**

**DRAFT**

<b>Zone/ Land Use</b>	<b>Facility Cost per Net Acre</b>	<b>Admin. Cost per Net Acre</b>	<b>Total Cost per Net Acre</b>	<b>Runoff Coefficient</b>	<b>Relative Runoff Percent</b>	<b>Fee per Net Acre</b>
	<i>a</i>	<i>b=.03*a</i>	<i>a+b</i>		[1]	
<b>Zone 4</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 31,812
Low-Density Residential	\$ 32,597	\$ 978	\$ 33,575	<b>0.70</b>	<b>1.00</b>	\$ 33,575
Medium-Density Residential	\$ 39,178	\$ 1,175	\$ 40,354	0.84	1.20	\$ 40,354
Medium/High-Density Residential	\$ 38,052	\$ 1,142	\$ 39,193	0.82	1.17	\$ 39,193
High-Density Residential	\$ 38,321	\$ 1,150	\$ 39,470	0.82	1.18	\$ 39,470
Neighborhood Commercial	\$ 41,645	\$ 1,249	\$ 42,894	0.89	1.28	\$ 42,894
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 41,546
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 39,321
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 38,083
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 40,354
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 31,478
<b>TOTAL</b>						
<b>Zone 5</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.81	\$ 33,442
Low-Density Residential	\$ 0	\$ 0	\$ 0	0.70	0.85	\$ 35,295
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 41,202
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.00	\$ 41,493
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.09	\$ 45,093
Highway Service Commercial	\$ 41,186	\$ 1,236	\$ 42,422	0.84	1.03	\$ 42,422
Office	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.06	\$ 43,675
Light Industrial	\$ 40,132	\$ 1,204	\$ 41,336	<b>0.82</b>	<b>1.00</b>	\$ 41,336
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	0.97	\$ 40,034
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.03	\$ 42,422
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.80	\$ 33,091
<b>TOTAL</b>						
<b>Zone 5a</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 48,194
Low-Density Residential	\$ 49,383	\$ 1,481	\$ 50,865	<b>0.70</b>	<b>1.00</b>	\$ 50,865
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 59,377
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.18	\$ 59,796
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.28	\$ 64,984
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Planned Commercial	\$ 61,107	\$ 1,833	\$ 62,941	0.86	1.24	\$ 62,941
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 59,570
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 57,694
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 61,135
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 47,688
<b>TOTAL</b>						

**Table 7**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Calculation Detail**

**DRAFT**

<b>Zone/ Land Use</b>	<b>Facility Cost per Net Acre</b>	<b>Admin. Cost per Net Acre</b>	<b>Total Cost per Net Acre</b>	<b>Runoff Coefficient</b>	<b>Relative Runoff Percent</b>	<b>Fee per Net Acre</b>
	<i>a</i>	<i>b= .03*a</i>	<i>a+b</i>		[1]	
<b>Zone 5b</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.95	\$ 29,210
Low-Density Residential	\$ 29,931	\$ 898	\$ 30,829	<b>0.70</b>	<b>1.00</b>	\$ 30,829
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 35,988
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	1.18	\$ 36,242
Neighborhood Commercial	\$ 0	\$ 0	\$ 0	0.89	1.28	\$ 39,386
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Office	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Planned Commercial	\$ 0	\$ 0	\$ 0	0.86	1.24	\$ 38,148
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	1.17	\$ 36,105
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	1.13	\$ 34,968
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Commercial/Business Park	\$ 0	\$ 0	\$ 0	0.84	1.20	\$ 37,053
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.94	\$ 28,904
<b>TOTAL</b>						
<b>Zone 6</b>						
Rural Residential	\$ 0	\$ 0	\$ 0	0.66	0.74	\$ 41,283
Low-Density Residential	\$ 0	\$ 0	\$ 0	0.70	0.78	\$ 43,571
Medium-Density Residential	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Medium/High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	0.91	\$ 50,862
High-Density Residential	\$ 0	\$ 0	\$ 0	0.82	0.92	\$ 51,221
Neighborhood Commercial	\$ 54,043	\$ 1,621	\$ 55,665	<b>0.89</b>	<b>1.00</b>	\$ 55,665
Highway Service Commercial	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Office	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Planned Commercial	\$ 52,344	\$ 1,570	\$ 53,915	0.86	0.97	\$ 53,915
Light Industrial	\$ 0	\$ 0	\$ 0	0.82	0.92	\$ 51,028
Heavy Industrial	\$ 0	\$ 0	\$ 0	0.79	0.89	\$ 49,420
Business/Industrial Park	\$ 0	\$ 0	\$ 0	0.84	0.94	\$ 52,368
Commercial/Business Park	\$ 50,842	\$ 1,525	\$ 52,368	0.84	0.94	\$ 52,368
Public/Quasi-Public (Schools)	\$ 0	\$ 0	\$ 0	0.66	0.73	\$ 40,850
<b>TOTAL</b>						

*fee calc*

[1] For land uses that have projected development in a zone: fee per net acre = total cost per net acre.

For land uses that do not have projected development in a zone: fee per net acre = relative runoff pct \* fee per net acre for land use shown in bold. The land use shown in bold is used as the basis of the relative runoff percent calculations.

For each land use, relative runoff percent = runoff coefficient/runoff coefficient of bolded land use.

## IV. FEE SUMMARY AND AB 1600 NEXUS FINDINGS

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This chapter summarizes the Flood Area Storm Drainage Fees and presents the findings necessary to establish the fees in accordance with AB 1600. The findings state: the purpose of the fee, the use of the fee, the relationship between the use of the fee and type of development, the relationship between need for the facility and the type of project, and the relationship between the amount of fee and the cost portion attributed to new development.

### FEE SUMMARY

**Table 8** summarizes the estimated Flood Area Storm Drainage Fees per net acre by flood area storm drainage zone and land use. As discussed in the previous chapter, each fee shown in **Table 8** includes a 3-percent administration fee. The administration fee covers costs associated with determining, levying, and collecting the fee.

### NEXUS FINDINGS

The nexus findings necessary to establish the Flood Area Storm Drainage Fees are detailed below.

#### PURPOSE OF FEE

The purpose of the fee is to provide for the collection and distribution of storm water in the flood area.

#### USE OF FEE

The fee will be used for the construction of new storm drainage facilities needed to address flooding problems in the flood area. The facilities needed to serve new development through buildout of the City's General Plan are detailed in the **Storm Drainage Cost Allocation Report** prepared by Wood Rodgers, Inc.

# DRAFT

**Table 8**  
**City of Winters**  
**Flood Area Storm Drainage Fee Nexus Study**  
**Fee Summary**

Land Use	Flood Area Storm Drainage Fee per Net Acre							
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 5a	Zone 5b	Zone 6
Rural Residential	\$ 48,855	\$ 65,294	\$ 56,431	\$ 31,812	\$ 33,442	\$ 48,194	\$ 29,210	\$ 41,283
Low-Density Residential	\$ 51,562	\$ 68,912	\$ 59,558	\$ 33,575	\$ 35,295	\$ 50,865	\$ 30,829	\$ 43,571
Medium-Density Residential	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Medium/High-Density Residential	\$ 60,191	\$ 80,445	\$ 69,525	\$ 39,193	\$ 41,202	\$ 59,377	\$ 35,988	\$ 50,862
High-Density Residential	\$ 60,616	\$ 81,013	\$ 70,016	\$ 39,470	\$ 41,493	\$ 59,796	\$ 36,242	\$ 51,221
Neighborhood Commercial	\$ 65,874	\$ 88,041	\$ 76,090	\$ 42,894	\$ 45,093	\$ 64,984	\$ 39,386	\$ 55,665
Highway Service Commercial	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Office	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Planned Commercial	\$ 63,803	\$ 85,273	\$ 73,698	\$ 41,546	\$ 43,675	\$ 62,941	\$ 38,148	\$ 53,915
Light Industrial	\$ 60,387	\$ 80,707	\$ 69,752	\$ 39,321	\$ 41,336	\$ 59,570	\$ 36,105	\$ 51,028
Heavy Industrial	\$ 58,485	\$ 78,164	\$ 67,554	\$ 38,083	\$ 40,034	\$ 57,694	\$ 34,968	\$ 49,420
Business/Industrial Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Commercial/Business Park	\$ 61,972	\$ 82,826	\$ 71,583	\$ 40,354	\$ 42,422	\$ 61,135	\$ 37,053	\$ 52,368
Public/Quasi-Public (Schools)	\$ 48,342	\$ 64,609	\$ 55,839	\$ 31,478	\$ 33,091	\$ 47,688	\$ 28,904	\$ 40,850

fee summary

## RELATIONSHIP BETWEEN USE OF FEE AND TYPE OF DEVELOPMENT

The development of new residential, office, commercial, and industrial land uses in the flood area of the City will generate additional runoff and the associated need for additional storm drain facilities to address potential flooding problems. The fees will be used to expand the storm drain system to prevent flooding as new development occurs in the flood area.

## RELATIONSHIP BETWEEN NEED FOR FACILITY AND TYPE OF PROJECT

Each new development project (residential, commercial, office, and industrial) in the flood area will generate additional runoff. All new development must have adequate storm drainage facilities to collect the storm water runoff and to prevent flooding.

## RELATIONSHIP BETWEEN AMOUNT OF FEE AND COST OF PORTION OF FACILITY ATTRIBUTED TO NEW DEVELOPMENT

For each storm drainage zone in the flood area, Wood Rodgers, Inc., estimated the total cost of the storm drainage facilities needed to solve flooding problems and allow new development. All of these costs were allocated to new development in the flood area. The total cost for each zone was allocated to the various land uses in the zone based on the percentage of total runoff generated by each land use. An additional 3 percent was added to each land use's cost share to account for the fee program administrative costs. For each land use, the total cost was divided by the number of net acres to determine the fee to be assessed on each net acre of development. Thus, the Flood Area Storm Drainage Fees are based directly on the costs allocated to new development in the flood area.

## V. IMPLEMENTATION AND UPDATE

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### INTRODUCTION

The proposed Flood Area Storm Drainage Fees presented in this report are based on the best land use information, facility cost estimates, and administrative cost estimates available at this time. After the fees are established, the City should conduct periodic reviews of the facility costs and other assumptions used in this Nexus Study to make necessary updates to the fees.

The cost estimates presented in this report are in constant 2005 dollars. All developers shall pay the amount of the fees in effect at the time that a final map is issued or at the time that a project is approved if no final map is required for the project. The fees recommended in this Nexus Study will be adjusted annually for inflation as outlined in this chapter.

### IMPLEMENTING ORDINANCES/RESOLUTIONS

This Nexus Study and proposed fees need to be approved by the Winters City Council through an ordinance and fee resolution to adopt the fees.

### COLLECTIONS

All new development that occurs in the flood area of the City after the adoption of the fees, except as specifically exempted herein, shall pay the fees at the time that a final map is issued or at the time that a project is approved if no final map is required for the project.

### EXEMPTIONS

Existing development is exempt from paying the fees. In addition, although fees have been established for new Public/Quasi Public development, all currently anticipated Public/Quasi Public uses except for schools have been exempted from paying the fee. If Yolo County was to develop in the City, however, then this development would be required to pay the Public/Quasi-public fee.

### ALLOWANCES FOR VARIATION IN LAND USES

This study uses the amount of remaining undeveloped acreage in each general plan land use designation as the basis for estimating the anticipated demand on storm drainage

facilities. Each general plan land use designation reflects a range of types of uses. Although generally somewhat uniform in the types of uses allowed in each land use category, certain atypical uses are allowed in land use designations that have somewhat different demands on public facilities from the typical uses. For example, multifamily residential units are allowed under the Neighborhood Commercial land use designation, even though the typical neighborhood commercial uses are retail uses, service uses, and offices. Thus, although residential use is included in what is *designated* in the general plan land use regulations as a commercial category, the *actual* type of use (residential) may more accurately reflect the demand on the City's storm drainage facilities. Therefore, where a use is proposed for development and the use is not typical of the use factors on which the fee was calculated for the applicable general plan land use designation, the fee that will be applied to that type of proposed use will be based on the category that most closely reflects the typical demands for that use.

## FEE CREDITS AND REIMBURSEMENTS OVERVIEW

As is typical with development impact fee programs, many of the public infrastructure facilities are needed up-front, in advance of when adequate revenue from the fee collection would be available to fund such improvements. Consequently, some type of private funding is necessary to pay for the public improvements when they are needed. This private financing may be in the form of land secured bonds, developer equity, or other form of private financing.

When private financing occurs, development impact fee programs need a mechanism to address situations where developers privately fund public facilities that would normally be funded by the fee program. To address this issue, fee credits and reimbursements will be allowed to provide the necessary link between collection of the Flood Area Storm Drainage Fees and the private construction and dedication of eligible facility improvements.

Developers/landowners who fund construction of storm drainage facilities included in this Nexus Study will be eligible for fee credits/reimbursements. Fee credits/reimbursements will be available for the facility construction cost up to a maximum of 1) the cost shown in this Nexus Study; or 2) actual costs if actual costs are less than the costs in this Nexus Study. Fee credits/reimbursements will be adjusted annually by the inflation factor used to adjust the fee. Once fee credits have been determined, they will be used at the time the respective fees would be due. The specific details of the fee credit/reimbursement policy are outlined in the following section.

## **FEE CREDITS AND REIMBURSEMENTS POLICY**

Fee credits/reimbursements for constructing storm drainage facilities that are part of the Flood Area Storm Drainage Fee program will be provided under the following conditions:

1. Developer-installed/acquired improvements shall be considered for reimbursement from the Flood Area Storm Drainage Fee program.
2. The value of any developer-installed/acquired improvements for reimbursement/fee credit purposes shall not exceed the total cost estimated (as adjusted for inflation) used to establish the amount of the fees in this Nexus Study, or actual costs, if actual costs are less than the Nexus Study costs.
3. The use of accumulated fee revenues shall be used in the following priority order: 1) City-determined critical projects and 2) repayment of accrued reimbursement to private developers. A project is deemed to be a "critical project" when failure to complete the project prohibits further development from occurring.

Once all criteria are met, fee credits may be taken against fees due. To obtain fee credits, the improvement projects must meet all City standards and criteria, and developers must apply to the City before payment of fees associated with a final subdivision map or the project approval if a final map is not required for a particular project. The City maintains the flexibility to allocate fee credits in a manner it chooses. Fee credits granted shall be on a per-net acre basis for all development projects.

Reimbursements will be due to developers who advance-fund facilities in excess of their fair share of the facility costs. In this instance, developers would first obtain fee credits, up to their fair share requirement for a facility, and then await reimbursement from fee revenue collections from other fee payers.

Reimbursement priority will be determined on a first-in and first-out basis. The City anticipates prioritizing the City accepted flood area storm drainage projects on a month-by-month basis. For example, if one storm drainage improvement project receives the City approval on the second of the month while another receives the City approval on the twentieth of the same month, each of the projects have equal weighting in terms of priority for reimbursement.

When funds are available, reimbursements will be paid to the first developer or group of developers awaiting reimbursement until that developer is paid in full. Then reimbursements will accrue to the next developer or group of developers awaiting reimbursement until paid in full.

To obtain reimbursements, developers must enter into a reimbursement agreement with the City. When funds are available, reimbursements will be paid quarterly, semi-annually, or as otherwise determined by the City. As noted, reimbursements will be paid only after the City's acceptance of the flood area storm drainage improvements. It is important to note that reimbursements are an obligation of the fee program and not an obligation of the City, City General Fund or other operating funds.

Developers will be eligible for fee credits/reimbursements up to 100 percent of the fee, excluding the administrative fee portion. Eligible public facility costs, which are used to determine fee credits/reimbursements, will be based on the cost schedule in this Nexus Study or actual construction costs if the fees are updated to include actual costs. The cost schedule in the Nexus Study will be automatically adjusted annually by the inflation factor described below.

## **ANNUAL INFLATION ADJUSTMENT AND PERIODIC FEE REVIEW**

### **INFLATION ADJUSTMENT**

The proposed fees will be adjusted annually by the City to account for the inflation of construction and acquisition costs. For ease of administration, the ordinance and resolution adopted to exact the fee should reference the automatic annual inflation adjustment.

The annual inflation adjustment should be made in January of each calendar year. The fees will be adjusted by the average of the change in the San Francisco CCI and the change in the 20-City CCI as reported in the Engineering News Record for the 12-month period ending October of the previous year. For example, the adjustment for January 2006 will be determined by calculating the change from October 2004 to October 2005 in the San Francisco CCI and the change for October 2004 to October 2005 in the 20-City CCI. These two rates of change will be averaged and the resulting value will be the adjustment factor for 2006.

### **PERIODIC FEE REVIEW**

In addition to being adjusted annually for inflation, the proposed fees are subject to a periodic update based on changes in developable land, cost estimates, or outside funding sources. The City periodically will review the costs and the fee rates to determine if any updates to the fees are warranted. During the periodic reviews, the City will analyze these items:

- Changes to the required facilities listed in the Nexus Study;
- Changes in the cost to update or administer the fee;
- Changes in costs greater than inflation;
- Changes in assumed land uses; and
- Changes in other funding sources.

Any changes to the fee based on the periodic update will be presented to the City for approval before increasing or decreasing the fee.

## **FEE ADMINISTRATION**

The proposed fees will be collected by the City at the time of building permit issuance. Per Government Code Section 66006, the City is required to deposit, invest, account for, and expend the fee revenue in a prescribed manner.

## **FIVE-YEAR REVIEW**

The fifth fiscal year following the first deposit into the fee account or fund, and every 5 years thereafter, the City is required to make all of the following findings with respect to that portion of the accounts or funds remaining unexpended:

- Identify the purpose for the fee;
- Demonstrate a reasonable relationship between the fee and the purpose for which it is charged;
- Identify all sources and amounts of funding anticipated to complete financing in incomplete plan area improvements; and
- Designate the approximate dates that the funding referred to in the above paragraph is expected to be deposited in the appropriate account or fund.

The City must refund the unexpended or uncommitted revenue portion for which a need could not be demonstrated in the above findings, unless the administrative costs exceed the amount of the refund.