

Stormwater Impact Mitigation Analysis (SIMA)

Overview

Background

City council directed staff to develop an independent drainage assessment process at the June 14, 2005 work study session

Purpose: To establish a comprehensive and objective program that provides greater consistency in assessing and mitigating development's impacts on stormwater

Proposed Program – SIMA

Staff proposes a Stormwater Impact Mitigation Analysis process, called SIMA, to address council's concerns for better managing development's impacts on stormwater

Staff's objectives for an independent review:

- ◆ Ensure the community's interests are protected during development
- ◆ Enhance citizens' confidence in outcomes of stormwater analyses

Why Are We Here?

- ◆ Present options for improving stormwater management
- ◆ Solicit feedback to incorporate into SIMA program

What is SIMA?

An independent Stormwater Impact Mitigation Analysis is required when a particular development activity occurs within a specified geographical area

- ◆ Firms specializing in stormwater management (hydrology, hydraulics, and sediment transport) conduct independent reviews or analysis and basis of design

When is a SIMA Required?

A SIMA is required for specific types of development on property meeting one of two criteria:

- ◆ Located within an area of special concern, *or*
- ◆ Contains a wash with a predevelopment 100-year peak discharge rate of 750 cfs or greater

Development Activities Requiring SIMA

Stormwater Impact Mitigation Analysis will apply to:

- ◆ Subdivision plats
- ◆ Lot splits
- ◆ Metes & bounds single family residential
- ◆ Walls
- ◆ Commercial lots
- ◆ Commercial subdivisions

How will SIMA be funded?

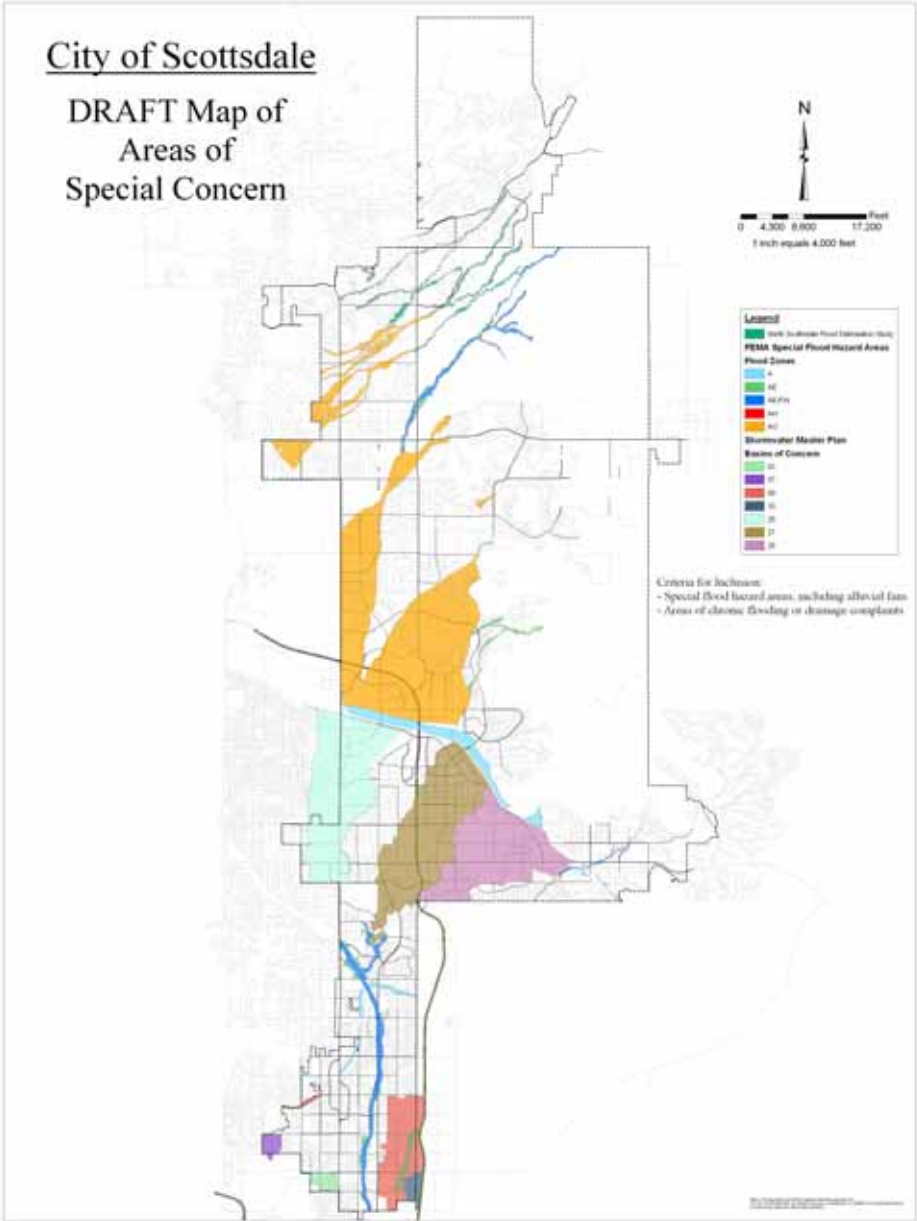
- ◆ Applicant pays for SIMA plus any new staff needed to administer the contracts, if applicable

Map of Areas of Special Concern

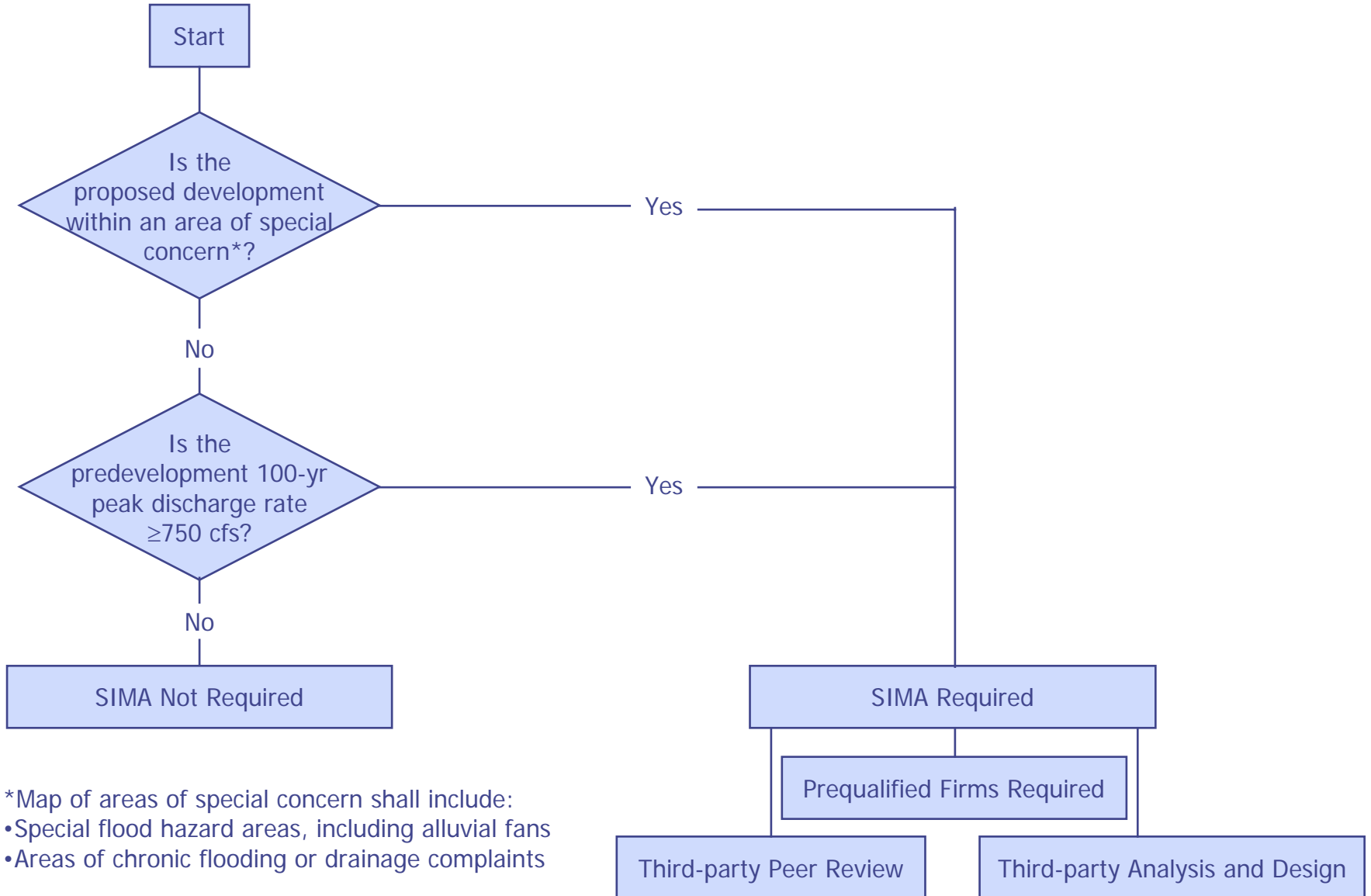
Staff developed a map of areas of special concern that includes:

- ◆ Special flood hazard areas, including alluvial fans, where stormwater runoff is difficult to predict and analyze
- ◆ Areas of chronic flooding or drainage complaints

Map—Areas of Special Concern



SIMA Thresholds



- *Map of areas of special concern shall include:
- Special flood hazard areas, including alluvial fans
 - Areas of chronic flooding or drainage complaints

Option 1: Prequalified List of Consultants for Analysis & Design

- ◆ Prequalified consultant list developed
- ◆ Applicant selects from list
- ◆ Consultant works directly with applicant
- ◆ City reviews consultant's design
- ◆ Applicant pays consultant directly

Option 2: 3rd Party Review of Applicant's Drainage Report

- ◆ City retains specialized, independent on-call consultants for 3rd party review
- ◆ City and applicant negotiate review fee with consultant
- ◆ Applicant pays city initially; city pays qualified consultant upon completion
- ◆ Applicant's engineer prepares drainage report and design plan
- ◆ Consultant reviews submittal
- ◆ Applicant's engineer must revise drainage report and design plan as needed
- ◆ City manages contracts and timeframes with consultants

Option 3: 3rd Party Analysis & Basis of Design

- ◆ City retains specialized, independent on-call consultants to develop drainage report and basis of design for applicants
- ◆ City and applicant negotiate fee with consultant
- ◆ Applicant pays city initially; city pays qualified consultant upon completion
- ◆ Consultant coordinates with applicant and develops drainage report and basis of design
- ◆ City reviews consultant's analysis
- ◆ Site design by applicant's engineer must be consistent with the independent drainage report and basis of design
- ◆ City manages contracts and timeframes with consultants

Evaluation of Options

Option 1 (Prequalified Consultants Required)

Pros

- Fewer plan review iterations likely
- Developer retains some measure of flexibility when selecting drainage consultant
- Affords minimal burden to developers, while ensuring a quality stormwater design

Evaluation of Options

Option 1 (Prequalified Consultants Required)

Pros (cont.)

- Prequalified consultant list updated annually
- Staff is not contract administrator for each project
- Requires far less staff resources

Evaluation of Options

Option 1 (Prequalified Consultants Required)

Cons

- Developer cannot hire stormwater design consultant of own choosing
- Consultant objectivity questionable
- Consultants left off prequalified consultant list might object
- Prequalified consultant personnel changes

Evaluation of Options

Option 2 (3rd Party Peer Review)

Pros

- Developer can hire stormwater design consultant of own choosing
- Developer pays for each plan review iteration, which should improve in-house QA/QC

Cons

- May not significantly reduce poor-quality submittals with multiple plan review iterations
- Staff is contract administrator for each project
- One additional FTE required (est.)

Evaluation of Options

Option 3 (3rd Party Analysis & Basis of Design)

Pros

- Analysis and basis of design will be done by a specialized consultant
- Submittals should be higher quality, leading to fewer plan review iterations
- Most conducive to fulfilling council's goal of providing objective, independent analysis and basis of design

Evaluation of Options

Option 3 (3rd Party Analysis & Design)

Cons

- Developer cannot hire stormwater design consultant of own choosing
- Project coordination may prove difficult
- Process would need to be invoked early in order to avoid project delays
- Staff is contract administrator for each project
- Two additional FTEs required (est.)

Evaluation of Options

Factor for Consideration	Option 1: Prequalified Consultants	Option 2: 3 rd Party Peer Review	Option 3: 3 rd Party Analysis & Design
Specialized Consultant	Yes	Yes	Yes
High-quality Submittals	Yes	Maybe	Yes
Developer Can Select Design Consultant	Yes	Yes	No
Developer Can Select Review Consultant	N/A	No	N/A
Staff Acts as Contract Administrator for each Project	No	Yes	Yes

Evaluation of Options

Factor for Consideration	Option 1: Prequalified Consultants	Option 2: 3 rd Party Peer Review	Option 3: 3 rd Party Analysis & Design
Lends Itself to Objectivity	Maybe	Yes	Yes
Additional Burden to Developers	Minimal	Limited	Maybe
Hinders Coordination among Design Team	No	No	Maybe
Impact to Project Schedule	None	None	Possible
Number of New FTEs Required (Est.)	0	1	2

Next Steps

- ◆ Complete public involvement process
 - This is first of three planned meetings
 - ◆ Engineering consultants, land-use attorneys
 - ◆ Focus group of concerned citizens in north Scottsdale
 - ◆ General public
- ◆ Incorporate feedback into proposed SIMA process
- ◆ Present proposed SIMA process to city council for approval
- ◆ Initiate SIMA program

Feedback

- ◆ Questions & concerns
- ◆ Other ideas?
- ◆ Which option(s) do you prefer?

Please e-mail comments and questions to
planninginfo@scottsdaleaz.gov.