

W O R K S E S S I O N

of the
CITY COUNCIL

March 5, 1982 at 9:00 A.M.
in the Police Training Room

A G E N D A

1. Floodwater Management Plan.
2. Refuse side loader test study

CERTIFICATION

I hereby certify that the above notice of meeting was posted on the bulletin board at the City Hall of the City of Abilene, Texas, on the 2nd day of March, 1982, at 10:00 A.M.


Assistant City Secretary

POLICE TRAINING ROOM
CITY HALL, THE CITY OF ABILENE, TEXAS.

SPECIAL WORKSHOP - FRIDAY
MARCH 5, 1982 - 9:00 A.M.

The City Council of the City of Abilene, Texas, met in Special Workshop, Friday, March 5, 1982, at 9:00 a.m. with Mayor Elbert E. Hall, present and presiding. Councilmen Seaton Higginbotham, Dick Bowen, Juan C. Rodriguez, A. E. Fogle, Jr., L.D. Hilton & Councilwoman Kathy Webster, present. City Manager Ed Seegmiller, Assistant City Attorney Gary Landers & City Secretary Ruth Hodgkin, present.

Invocation by Councilman Fogle.

Mayor Hall asked Mr. Bob Whitehead, Director of Public Works, to brief the Council on the second meeting of the Flood Water Management Plan.

Mr. Whitehead said that we needed to discuss the alternatives on the creeks that are left, being Indian, Catclaw, Buttonwillow and Rainey Creeks. He said that the Staff needed guidance and direction on the policies regarding the Flood management of these creeks and others.

Mr. Whitehead said that multiple alternatives for Flood control were recommended in Phase I for the streams included in this study. In the areas recommending structural improvements, the techniques applied are channel improvements and/or Flood storage structures. Channel improvements convey a given quantity of Flood water within the bank limits and Flood storage containing Flood water within a reservoir area and release at a reduced flow rate.

The original alternative from the Phase I Report proposed an improved channel for approximately the first 1-1/2 miles of channel. It became apparent very early in the study that improved channels in very sparsely developed stream areas such as Indian Creek did not provide a satisfactory benefit for the cost of improvements. Therefore, for Indian Creek the most cost effective means of Flood control is the implementation of administrative controls to restrict development beyond the 100-year Flood plain or floodway as shown on Plate 1 of the booklet.

He said that an improved channel is proposed for Catclaw Creek beginning at the Elm Creek confluence and extending to South Loop 277. The extent of the improvements include widening and deepening the channel flow line as shown on Plate 2 in the booklet. Because of the wider and deeper channels all bridges (culverts) except possibly the bridge at Interstate Hwy 20 (IH20) will require replacement. Upstream of the Loop 277 bridge, except for the improved channel transition, the creek is scheduled to remain in a natural state with flood control provided by administrative restrictions preventing development in the 100-year Flood plain. This is Alternate 1.

He discussed Alternate 1A. Because of the magnitude of capital improvements, this alternative proposes a staged approach to achieving 100-year Flood protection by initially providing a 25-year level of flood control. Limited channel improvements and bridge replacement are recommended and shown on Plate 3 of the booklet. To achieve the 100-year level of protection the improvements recommended by Plate 2 would ultimately be required.

He discussed Alternate 2. Maximum utilization of detention reservoirs is recommended by this alternative. Two detention reservoirs are recommended upstream of Loop 277 and one downstream of the highway. The two upstream detention structures are very effective in reducing the 100-year peak flow; however limited benefit upstream of Loop 277 is derived because of the sparse development along this segment of Catclaw Creek. The two upstream facilities also have almost no effect in reducing the peak flows downstream of Loop 277 because the high peak runoff caused by total development within this area. Therefore, to reduce the peak runoff from the developed area a detention facility in the vicinity of Rose Park is recommended. By providing approximately 1,000 acre-feet of storage on an area of approximately 150 acres, a very effective reduction of peak runoff can be achieved. This alternative proposed only detention structures for flood control. Channel improvement will be limited to channel clean-out and will require construction of two bridges. The 100-year Flood will generally be contained within the channel through the developed portion of the creek. Upstream of Loop 277 administrative controls will be implemented. This is shown on Plate 4.

Mr. Whitehead presented Alternate 1, on Buttonwillow Creek. He said that from the confluence with Cedar Creek an improved channel is proposed to Highway 83-84 with the widths and bridge replacements shown on Plate 5. Upstream of Highway 83-84 additional improvements consist of replacing four street bridges. The existing channel with bridge improvements through Fairway Oaks area generally conveys the 100-year flow without significant overbank flooding. Upstream of Antilley Road flood control will be provided by application of administrative controls.

Mr. Whitehead said that Alternate 2 was an alternative which proposes detention basins to generally achieve peak runoff control without improvements to channels or bridges. Because of the terrain conditions a large surface area is required to obtain sufficient volume for flood storage. Administrative controls supplement the two detention basins. This can be seen on Plate 6.

Mr. Whitehead presented Alternate 3 on Buttonwillow Creek. He said that this alternative proposes no additional improvements to Buttonwillow Creek and provides flood control by implementing administrative controls to restrict development from the 100-year flood plain or floodway. This can be seen on Plate 7.

Mr. Whitehead explained Alternate 1 on Lytle Creek saying that downstream of Lytle Lake an improved channel and bridge are replaced to contain the 100-year flow within the channel bank. Upstream of Lytle Lake administrative control is recommended to the limit of the study area which extends approximately to the southern limit of Abilene Airport. This can be seen on Plate 8.

He explained that both alternates 2 & 3 effect flood control by the construction of a detention structure located upstream of Lytle Lake and just west of the airport. The stream from its confluence with Cedar Creek to the upstream limit is controlled by administrative controls to restrict development in the flood plain. This can be seen on Plate 9.

Mr. Whitehead said that Rainy Creek throughout the length of the study limit is proposed for administrative control. Because of the limited development, the restriction of administrative control prior to development will "head-off" future flood problems along the stream area. This can be seen on Plate 10.

John May, owner of a Mobile Home Park on the north side, said that the main reason that they got flooded out was the uncontrolled growth on the south side of town. He said that the City needs to stop any uncontrolled growth that did not control their runoff.

Steve Watkins, 3117 Post Oak Road, said that dirt fill work underway in the area east of Dyess AFB is likely to cause a flooding problem in the Wyndrock Addition, where he lives.

Mr. Seegmiller said that we could work toward some solution to the flooding that would be seen and felt. He said that we could do the work in small increments that would show up and help in the long run.

Jerry Fleming, Freese & Nichols Engineering Firm, explained some examples for retention storage. He said that the cost could range from \$100,000 to \$1 Million to do it right. He said that some of the smaller retention ponds could cost in the range of \$45,000 to \$150,000 to construct.

Mr. Whitehead said that policies for stormwater management shall govern the planning, design, construction and operation of storm drainage facilities within the City of Abilene and within the areas subject to its extraterritorial jurisdiction. He said that these drainage policies are defined by Abilene Stormwater Ordinance, Abilene Stream Management Plan and Abilene Drainage Standards.

Mike Herron, Developer, asked what was going to happen with development if they got just outside the extraterritorial jurisdiction. He said that there would be nothing to stop them from doing that.

Mr. Seegmiller said that there needs to be a great deal of consideration, because it was going to affect so many people.

Mr. Whitehead said that any development not in an approval process, as required by the City of Abilene, and commencing after the date of Council approval of these stormwater management policies shall be governed and developed in accordance with these policies and guidelines.

Mr. Whitehead said that the Abilene Stream Management Plan, whether adopted in part or in whole, shall become the official stormwater management plan for streams: Indian, Elm, Little Elm, Cat Claw, Buttonwillow, Cedar, Lytle and Rainy to the limit shown on the Abilene Stream Management Plan. Deviation from this plan will not be permitted unless (1) it can be clearly shown that changes will not increase flooding either upstream or downstream of the point of change, (2) owners directly effected by the change are in agreement and (3) not in conflict with other plans adopted by the Council. It was discussed who could review a requested deviation.

Mr. Whitehead said that increased runoff caused by development shall not be permitted. For residential development of four acres or more or non-residential development of two acres or more, the 10-year through 100-year frequency, 24-hour duration storm runoff shall be controlled within the limits of the development in a manner approved by the City Engineer. Variation from runoff control shall not be approved unless compatible with City Growth Management Policies approved by the City Council.

Mr. Whitehead said that Regional detention reservoir(s) may be utilized in lieu of on-site runoff control to prevent increased runoff due to development from a more than one residential or non-residential development. Variation from runoff control shall not be approved unless compatible with City Growth Management Policies as approved by the City Council. Control shall be provided for the 10-year through 100-year frequency, 24-hour duration storm. When this option is adopted by the owner, a contribution prior to the issuance of an earth change permit shall be made to the City of Abilene in accordance with the following schedule:

Type of Development
Single Family
Multi-Family
None Residential

Mr. Whitehead said that acquisition of regional and sub-regional detention sites and construction of facilities thereon will be financed, designed and constructed by the City. Monies contributed by owners as above provided shall be used for regional and sub-regional detention sites, facilities and maintenance thereof in the watershed in which the development is located.

He said that the Major Drainage System of the 100-year flood shall be contained within the right-of-way or dedicated easement of all major drainage systems. These facilities include natural streams, improved channels, detention reservoirs, overland swales and street right-of-ways.

The Minor Drainage Systems are intended to provide for nuisance type flooding and usually consist of streets, storm drain inlets, storm drain pipes, and roadside ditch culverts. The minor system shall provide conveyance for the 5-year frequency flood or as approved by the City Engineer.

Mr. Whitehead said that select bridges, as determined by the City Engineer, on streams not proposed for structural improvements in accordance with the Abilene Stream Management Plan shall be scheduled for improvement to convey the 100-year frequency flow below the top of roadway to allow the unobstructed passage of vehicular traffic. Streams scheduled for improvement in accordance with the Abilene Stream Management Plan shall have bridge improvements made in accordance with the Standards Section of the manual. Bridges associated with approved channel improvements in variance to the Abilene Stream Management Plan and all new roadway bridges shall be designed in accordance with the Standards Section of the manual.

Mr. Whitehead said that they had established some good monitoring stations along the creeks upstream, which would help in case of flooding. Stormwater runoff computation procedures shall be based upon totally developed conditions for the ultimate development. For regions implementing On-Site Runoff Control, the upstream areas may be assumed to produce no more runoff than produced under existing conditions.

Mr. Whitehead said that the City might consider annexing undeveloped critical watersheds, so that they could control it better. He said that there were five policies that need to be considered before annexation. They are the following:

- a) that need to be protected in order to prevent or reduce Flood damage in existing urban areas.
- b) that possess unique physical characteristics.
- c) that have requested City services.
- d) that minimize fiscal liability.
- e) that are currently urbanizing or exhibit potential for urbanization.

Mr. Whitehead discussed the user charge against those people who might use a city owned detention pond, or be charged a user charge for regionalized sort of facility. He said that there are several cities who have some kind of charge to all property owners who have some kind of runoff to that facility. He explained that the charges could be monthly, or annually. He said that four or five developers could get together and present the need for a facility to take care of the runoff in an area, the City would probably end up building it and then the developers would in turn be charged a users fee because they were in the watershed of that certain facility.

He said that Billings, Montana, and a number of cities were assessing charges against the developers because they were increasing the runoff in the area. He said that the City would have the responsibility for the upkeep of these facilities, this is one of the reasons why the City would want to construct most drainage facilities. One way this could be handled, is that the developer could construct the facility and then when the funds become available reimburse the developer, because the City would be maintaining it and taking it over.

Mr. Whitehead said that the City had the ability to acquire necessary right-of-way to be used for flood control.

Mr. Seegmiller said that the Staff had been directed to do flood control work on private property on a voluntary basis, in the past.

Mr. Whitehead discussed the present stream management plan, how it could be changed and by whom. He said that this might have to be handled stream by stream.

Buck Creek was discussed and why it was not included in this proposal with Freese and Nichols.

Mr. Whitehead said that administrative controls would probably be enough for this creek's watershed.

Mayor Hall said that this would be a good time to ask Freese & Nichols to include Buck Creek in their study. Mr. Whitehead was directed to get the necessary information and bring back to the Council, the additional cost for Buck Creek to be included in the Floodwater Management Plan done by Freese & Nichols.

Councilman Fogle left the meeting.

The last policy that Mr. Whitehead discussed was the major drainage system for the 100-year flood. The basic policy statement would be for the 100-year frequency flood shall be contained within a dedicated right-of-way or easement. This includes natural streams, detention reservoirs, overland swales, improved channels. These would be designed to take care of the 100-year flood. This gets back into if we want to not allow development in the 100-year floodway, or if we want to look at the lesser sort of storms.

The above was discussed and comments were made.

Mr. Whitehead said that we needed to look at the bridges. We need to see if all of the bridges need to be constructed where they will convey that 100-year flood or whether we want to set up a system where we have certain bridges on some major streets that will pass that 100-year flood.

Mr. Whitehead discussed erosion & sediment control policy. It shall be minimized by applying erosion control devices. He said that the new Building Code has covered this for the developer or contractor. This is another cost impact to development. Likewise, sediment control devices shall be utilized to reduce the introduction of eroded materials into Abilene streams and lakes. There needs to be a plan for a permit to be issued, after the developer shows how he is going to control the erosion and sediment in his development. These policies could be worked into an overall development plan, and use the retention plan. It could be designed to handle the erosion and sediment, and could be the pond facility.

Mayor Hall suggested that the Council take this home and absorb it, whereby knowing better what he thinks of the policies and discussions, when it comes time to vote.

It was suggested that the Strategies for Responsible Growth Committee go over these recommendations, because the Council said that they needed more input before deciding.

It was the consensus of the Council to wait for more information before voting on any of the policies or plans concerning the Stormwater Development or drainage plans for the City of Abilene.

Mayor Hall asked Mr. Whitehead to brief the Council on the Sideloader Refuse Collection.

Mr. Whitehead said that they had done a mini-test involving metal and polyethylene side loader containers. He said that the period for the test was from January 4, 1982 - February 12, 1982, a period of six weeks. He pointed out that the number of households surveyed were 453, with 341 responding. He said that 75 (22%) wanted to retain individual cans. 266 (78%) of the households indicated preference for side loading system, even though 78 (29.3%) were for the Polyethylene Containers and 188 (70.7%) showed preference to the Metal Side Loading Containers.

Mr. Whitehead said that they could pick up more polyethylene containers in a days time than they could metal containers. He also pointed out that the project figure of maintenance on the metal containers were \$151,632, with the plastic container being almost maintenance free.

A smaller roll-out container was discussed, and a larger container for the alley. Since some people don't think that the alley container will be large enough for four families, 3.4 families were discussed.

Additional containers could be used, or they could pick up more often, Mr. Whitehead said. He said that they could do this and the plastic container sidelading system would still be the least costly for the City.

The merits of the side loader system and the proposed savings to the City on the Polyethylene Container Side Loader System was discussed at length.

Mr. Seegmiller said that Mr. Whitehead would be bidding both the metal and the polyethylene containers. He said that they would be looking into some way of trying to keep from picking up the containers in the areas before the bids are tabulated.

After discussion, Mayor Hall asked if the Council was prepared to take action. Councilman Hilton said the Council was voting on the new side loading system versus the present can collection.

Councilwoman Webster moved to go with the side loading container system. The motion was seconded by Councilman Bowen. The motion carried as follows:

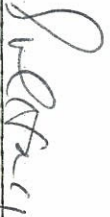
AYES: Councilmen Higginbotham, Bowen, Hilton, Councilwoman Webster & Mayor Hall.

NAYS: None.

Mr. Seegmiller said that the Staff would get an implementation schedule to the Council.

There being no further business, Mayor Hall adjourned the meeting at 2:00 p.m.


CITY SECRETARY


MAYOR ELBERT E. HALL